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INDIA OF TO-DAY

VOLUME VII

INDIAN RAILWAYS

BY

K. V. IYER

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INDIAN RAILWAYS

INDIA OF TO-DAY

A SERIES OF BOOKLETS DEALING WITH PROBLEMS OF GENERAL INTEREST

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In the Press—

Vol. VI. India's Forest Wealth. By E. A. SMYTHIES.

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NOTES

Crore	=	100 lakhs	=	1,00,00,000.
£ 1	=	15 rupees as legal tender pri Indian Coinage Amendmen 36 of 1920 and 10 rupees then.		
Rupee	=	16 annas	=	192 pies.

The railway financial year has, since 1913, begun April and ended with the March following.

CHAPTER I

CONSTRUCTION OF MAIN LINES

FOR hundreds of years roads and waterways were the only means of transport in India, as elsewhere, for the carriage of both men and goods, and though in the popular opinion railroads and steam traction are closely associated as having had simultaneous origin, it is interesting to recall that this is not historically correct.

Railroads were first introduced as a substitute for common roads in the coal districts of England in the early years of the seventeenth century, and by 1750 there was scarcely an important mine in that country which had not its own railroad. The rails were at first of wood; later on, the wood-way was plated with iron, and next iron rails came to be adopted. The motive power was supplied by horses and with every advance in the formation of the road the load which the animals could draw was steadily increased.

Experiments in the use of steam for the service of mankind began to be made towards the end of the seventeenth century. Steam energy was first turned into use for pumping water and the further extensions in its use need not detain us here. The first attempts at steam traction were made towards the close of 1801, but for several years more the railroads were not available for the general public, their use having been confined to the purposes of the colliery working. The first line to be built for the general service of the public was the Stockton and Darlington Railway, which was opened for traffic on September 27, 1825, the name of George Stephenson being immortalized by the event. Further improvements in the design of the locomotive engine followed, thanks to the persistent efforts of several pioneers in England.

Thus the small beginning made in 1825 soon attained considerable proportions, and it was not long before a regular mania in favour of railway construction set in.

India soon attracted the attention of financiers a engineers in England, and in 1845 two companies, und the designation of the East Indian Railway Compar and the Great Indian Peninsula Railway Company, we formed in England. The proprietors found it difficult t make any progress without the assistance of Goverr ment and the preliminary discussions took a long tim to settle.

A brief history of the terms on which these companie were formed and construction was undertaken will not b without interest.

The East Indian Railway Company put forward proposal to raise a capital of one million sterling for th construction of an ' experimental ' railway from Calcutt and extending for 140 miles towards Allahabad. Th Court of Directors of the East India Company in Englan addressed a despatch on May 7, 1845, to the Governor General in India on the above proposal, and shortly there after sent out a railway engineer of experience, name Simms, to consider and suggest some scheme of moderat length as a first experiment. Mr. Simms submitte early in 1846 a memorandum on the terms to be give to English Companies and his recommendations were a follows :—

(1) A lease should be given to the company t construct, maintain and hold certain lines for a term o years.

(2) Land should be given by the Government free o cost for permanent works.

(3) No tax should be imposed on the railway.

(4) The company should have complete control ove the servants.

(5) The company should make the necessary survey and plans, submit them for approval, construct the line in accordance with the approved specification and maintai all works in perfect repair, until the expiration of th leases, when they should be handed over to Governmen without payment.

(6) An inspecting officer on behalf of Governmen should have power to condemn, stop or order the recon struction of any work.

(7) If the company failed in its engagements Government should have power to take the whole property into their hands and do with it as they thought fit.

(8) After completion of the line, every working regulation, rule or by-law, the tariffs, the number and timing of trains should be approved by Government.

(9) Mails, troops and military stores were to be carried at reduced rates.

(10) All railways were to be constructed on one specification, worked on one system and supplied with stock of one uniform pattern.

(11) The company should keep its accounts in approved forms and the Government should have power to call for any financial or statistical returns considered necessary.

Most of the above suggestions are still in force, modified to a smaller or larger extent, and it is pleasing to notice how well they have stood the test of time.

The negotiations dragged their weary length along and it was not till August 1849 that a definite agreement was made with the East Indian Railway Company for the construction of a line starting from Calcutta and proceeding in the direction of Mirzapore or Rajmahal. A few of the essential features in which the agreement differed from Mr. Simms' memorandum may be noted here :—

(1) The Government retained power to require a reduction in rates and fares when the net receipts exceeded 10 per cent upon the outlay on the line.

(2) The Government reserved to themselves entire control and superintendence over the servants of the company and the appointment of a Government Director with power of veto.

(3) Interest was payable to the company at 5 per cent per annum on the capital sum paid into the treasury.

(4) After setting aside a contribution to a reserve or making good deterioration, the net profit of the line was to be applied in the first instance towards the repayment of interest to Government. The accumulated interest debt was to bear simple interest only at 5 per cent per annum and when the profits exceeded the amount

payable on the guarantee, one half of such excess was to be credited to the company and the other half towards liquidation of the interest on the debt, and then to the extinction of the debt itself. When the debt and interest had been discharged the company was to take the whole of the surplus net receipts.

(5) Mails and postal servants were to be carried free of charge.

(6) At the expiration of the term of ninety-nine years, the land and works were to become the property of Government, the rolling-stock and other movable property being paid for at a fair value.

(7) The company might voluntarily surrender the line after completion on giving six months' notice, when the Government would refund the capital outlay.

(8) The Government had the option of purchasing the line within six months after the first twenty-five years, or the first fifty years, the sum to be paid being the full amount of the value of all share and capital stock, calculated on the mean market value in London during the preceding three years.

(9) Instead of repaying capital directly, the Government were empowered to commute this by granting annuities payable half-yearly for the remainder of the term of ninety-nine years.

It was on such terms of guarantee that railway construction was commenced in India and the main trunk lines constructed. The companies thus formed were the East Indian, Great Indian Peninsula, Madras, Bombay Baroda and Central India, the Sind, Punjab and Delhi, and the Eastern Bengal Railways. The first line to be opened for traffic was a short length of 21 miles on the 5′ 6″ gauge from Bombay (Victoria Terminus) to Thana, which event took place on April 18, 1853. The East Indian Railway from Howrah (Calcutta) to Hooghly, 23·28 miles in length, was thrown open on August 15, 1854, and the Madras Railway shortly followed by a line from Rayapuram (Madras) to Wallajah Road, 65·38 miles in length, thrown open for traffic on July 1, 1856. Further construction followed apace and this policy of railway construction by companies held the entire field

till 1869. To the end of 1868, 1,832 miles of railway were constructed by this agency.

Here a short digression may be made. One of the guaranteed companies was the Calcutta and South Eastern Railway which was opened in 1862. Since its opening it had been worked at a loss and the line was surrendered to Government under the terms of the contract in April, 1868, and hence this became the first line owned by Government.

The idea of construction by the Government was first adumbrated in a despatch of the Secretary of State in 1868. He then considered it desirable to distinguish between commercial lines and political lines. The former should comprise such lines as would open up districts whose natural resources were at once the best and the least developed and be constructed by companies under a system of guarantee. As regards political lines in whose construction there was a prospect of commercial loss, he thought direct Government action might be preferable so as not to weigh down the market for railway securities. In March, 1869, the Government of India took up the question of State construction in real earnest and submitted a minute by Lord Lawrence, making out a strong case in favour of State construction. Lord Lawrence urged that under the then existing system of guarantee the Government were liable to a permanent and probably increasing charge for interest, and that, while the Government could derive no profit from the most successful railway, they bore the whole loss of railways which did not pay. He said that he was satisfied that the Government could secure at least as great ability to carry out the works as companies, and with no greater outlay. The Secretary of State stated in reply that whatever may have been the strength of the considerations which had led the Government to entrust the construction of railways in India to companies under guarantee, he was prepared to agree with the Government of India that the time had arrived to take up a fresh position, and to secure for themselves the full benefit of the credit which they lent, and of the cheaper agencies which ought to be at their command. The

question of gauge also was re-considered, and it was decided that the standard or the 5′ 6″ gauge should be adopted for all trunk lines and that metre gauge would suffice for all subsidiary lines.

A vigorous programme of railway construction by the agency of Government then followed. The first lines of railway to be thus constructed were the length from Delhi to Rewari and the Faruknagar Salt Branch, a total of 58·85 miles, and these were thrown open for traffic on February 14, 1873. This policy held full sway till 1881. By the end of 1880, 6,095 miles of railway had been constructed and opened by the agency of companies and 2,709 miles by State agency.

To mention here another matter as having a bearing on the policy of railway construction in India may not be irrelevant. Before the first half of the last century had gone by, the Upper Anicut across the Coleroon had been constructed by Major (later Sir) Arthur Cotton, as also a dam across the head of the Caveri Branch. The construction of the weirs across the Godavari at Dowaliswaram was undertaken and the irrigation of the Godaveri Delta put in hand, the canals being intended to serve the purpose of navigation also. This idea of combining navigation with irrigation held sway for a few decades and had a momentous effect on the policy of irrigation in India. It naturally secured larger attention being paid to irrigation projects than to railway projects. Later on, however, wiser counsel born of bitter experience prevailed, and the policy has since been to confine canals to purposes of irrigation alone. It is also interesting to recall that for some time the construction of irrigation works was, like the construction of railways, entrusted to private companies. After a few companies had failed, the Secretary of State came to the conclusion in 1886 that private enterprise was unsuitable for the construction and management of large irrigation works, and decided upon the policy of constructing these works by Government agency alone, from loan-funds, if necessary.

Before proceeding to the next stage in the history, it remains only to mention that during the year 1869, i.e. five years before the time when the first of the guaranteed

lines could have been acquired in terms of the contract, owing to the expiry of the first period of twenty-five years, the Secretary of State entered into negotiations for relinquishing this right on certain conditions. The terms were that the contract was to be renewed for a second period of twenty-five years, that the Secretary of State should forego the arrears due by the company for guaranteed interest, and that during the remaining years of the lease, surplus over 5 per cent should be divided equally between the Government and the company. The Government of India were not agreeable to these terms but their protest reached the Secretary of State too late to affect his decision. Fresh contracts on these terms were concluded with the Great Indian Peninsula, Bombay Baroda, and the Madras Railways. It is unnecessary to speculate as to the reasons which led the Secretary of State to enter into these terms; it need only be said that the expansion of the business of the railways which actually ensued could not have been then easily foreseen.

Then came the years of famine. The period between 1874 and 1879 witnessed great famines in India. Two lessons which were brought home were (i) that irrigation works should be extended, and (ii) that the means of communication should be so improved as to permit of the movement of produce from areas where there was surplus to needy tracts of the country. The Famine Commission appointed in 1880 considered that 5,000 additional miles of railway were urgently needed and that the country could not be held to be safe from famines until the Indian railway system aggregated 20,000 miles. Just when important schemes of famine-protection railways were being taken in hand, the Afghan War set in, and the Government were forced to the conclusion that State enterprise alone could not be relied upon for the provision of the necessary railways with due expedition.

A new era then started in which construction by the agency of companies again received encouragement. The Southern Mahratta Railway Company was floated, with a guarantee of 4 per cent for five years and 3½ per cent thereafter, together with a fourth share in the net

profits, the line to remain the property of the State, but worked and funds supplied by the company. The Indian Midland Railway and Bengal Nagpür Railway Companies then followed on almost similar terms. It will be seen that the essential differences between the earlier companies and the later ones lay in the lower rate of guaranteed interest and a larger share of surplus profits accruing to Government, and only the amount of capital provided by the company being required to be repaid when the contract was terminated.

A few other companies were also floated during this period which might well receive a passing mention. The main feature of these companies was that there was no guarantee. The Bengal Central Company was the first to be floated, the Secretary of State agreeing to advance until the opening of the railway throughout, or to the end of five years such sums as, together with the net earnings, would give the company 4 per cent on the capital expenditure. The sums so advanced were to be repaid with simple interest at 4 per cent by appropriation of net earnings above 5 per cent on the capital. The Rohilkhand and Kumaon and Bengal and North-Western Railway Companies were next floated on similar terms, except that the former received a subsidy of Rs. 40,000 per annum and that in the latter case the Government of India were entitled to a moiety of the surplus profits over 6 per cent, which latter condition was cancelled in 1886, and the entire profits have since accrued to the company. The Bengal Central Railway was a failure from the commencement and the terms were altered to one of guarantee; but it is now defunct, the property being merged in the Eastern Bengal Railway undertaking. The other two companies still exist, their positions having been strengthened owing to the working of certain State lines being entrusted to them. The Delhi Umbala Kalka Railway Company was started with a free gift of land and without a guarantee. The line is worked by the State through the agency of the East Indian Railway for 48 per cent of the gross receipts.

As the contracts of the guaranteed companies expired, the opportunity was taken to acquire the lines and to give

them to the same companies or other companies on revised terms. The first to be thus dealt with was the East Indian Railway. In 1879, the Secretary of State purchased this railway, the purchase-price being paid by means of annuities terminable in 1953. At the same time, the shareholders entitled to one-fifth of the amount of the annuities, viz. £6,550,000, agreed to postpone their annuities and accepted a new contract. These shareholders—deferred annuitants as they were called—undertook the management of the railway and were guaranteed in return 4 per cent on the capital as also a share of the surplus profits, i.e. profits accruing after working expenses, annuity and sinking fund payments and charges on account of interest had been paid out. The next line to be dealt with in this manner was the South Indian Railway, which was taken over some years later.

The present position is that all the guaranteed companies of the earlier type have ceased to exist and that all the existing main line companies, with the exception of the Bengal and North-Western and Rohilkhand and Kumaon Railway Companies, are of the working agency type with a fractional interest in the capital, the railways being entirely the property of the State.

CHAPTER II

BRANCH LINE COMPANIES

IN the previous chapter the progress of railway construction by the agency of Government, and of railway companies which in common parlance are called main-line companies, has been briefly described. In 1893 the Government of India issued a resolution laying down the terms on which they were prepared to consider the construction of branch and feeder lines by companies on terms intended to be less onerous to Government. Such companies are called Branch Line Companies and the terms have changed somewhat since they were first promulgated. The latest orders on the subject are contained in the Government of India Resolution No. 457 P, dated November 14, 1913, as modified by letter No. 969 R. P. 14, dated March 13, 1914, which has till recently been published *in extenso* in the *Annual Administration Report on Railways in India*. Their main features may be summarized thus :—

(1) The capital of the company should be expressed in rupees and subscription must be invited only in India.

(2) The plans and estimates for the railway, the gauge, route, the position of stations and other details of a similar character require the approval of the Government.

(3) All land in British territory required for the purposes of the line, whether permanently or temporarily, will be provided by Government free of charge.

(4) The results of surveys made by Government will be available and fresh surveys will also be carried out by them at the request of the promoters. When permission is eventually granted for the construction of the line, the cost of the surveys will become a part of the capital outlay and be reimbursed to Government.

(5) Railway materials for construction will be carried over railways owned and worked by the State at the

special rates charged for similar materials belonging to State railways.

(6) The Government of India will grant financial assistance in the shape of a guarantee of interest, or of rebate from the net earnings of the main line from traffic interchanged with the branch, or in the shape of both in case the capital is raised partly under the guarantee and partly under rebate.

(*a*) The guarantee of interest is at $3\frac{1}{2}$ per cent per annum on the approved paid-up share capital from the close of the period during which interest is payable out of capital, subject to the condition that all surplus profits earned by the company in excess of 5 per cent shall be divided equally between Government and the Company.

(*b*) The rebate will be such a sum not exceeding in any year the net earnings (exclusive of the earnings from the carriage of revenue stores) from traffic interchanged between the branch line and the railway owned and worked by State with which it connects, as shall together with the net earnings of the branch line make up an amount equal to interest at 5 per cent per annum on the approved paid-up share capital, subject to the condition that when the net earnings of the company, without the addition of rebate, suffice to pay interest at a rate exceeding 5 per cent, a moiety of such excess shall accrue to Government.

(*c*) The capital of a branch line may be raised partly on guarantee and partly on rebate terms.

(7) If the branch line company proposes to construct and work the branch line itself, the amount to be spent each year on working expenses will be subject to the sanction of the Government of India. The Government of India have also the right of appointing a Director with an absolute power of *veto* and further reserve the power to assume the working of the railway in certain eventualities.

(8) When the main line is owned and worked by the State, the main line will be prepared to work the branch line for a percentage of the gross earnings not exceeding 50 per cent. When the gauges are not the same, special working terms will be fixed in each case.

(9) No capital expenditure will be recognized unless prior sanction of the Government of India has been obtained. The company shall have no power to increase its share or stock capital or to borrow money, except for purely temporary purposes, without the sanction of the Government of India or the Secretary of State.

(10) Unexpended capital shall be invested or deposited at interest and the return therefrom shall be treated as net earnings.

(11) Accounts will, if so required, be kept in forms approved by the Government of India and will be subject to audit by officers appointed by the Government.

(12) Subject to the law for the time being in force, payment out of capital will be sanctioned, during a period which may extend to the close of the half year in which the railway shall have been opened throughout for traffic, of such sums as, with the net earnings, will be sufficient to pay interest at the agreed rate upon the paid-up capital.

(13) Expenses of management of the branch line company may also be incurred during construction and after opening, subject to certain conditions.

(14) The Government of India reserve the right to fix rates and fares and to determine the classification of goods for tariff purposes, as also a right over the number and timings of trains.

(15) The Government of India reserve the right to purchase the line at any time after giving twelve months' notice:

- (*a*) When it is considered desirable to alter the gauge.
- (*b*) When it is desired to convert the branch line into a through line of communication.
- (*c*) When the Government of India desire to extend the branch line and the company is unwilling or unable to supply funds.

In the event of purchase, the price shall be twenty-five times the average net earnings during the three years preceding the purchase or 115 per cent of the capital expenditure, whichever is greater.

(16) The Government of India may also purchase the line at the expiry of thirty years from the date of the opening of the line for traffic or at subsequent intervals of ten years, the purchase price being determined as in the previous clause subject to a maximum of 120 per cent and a minimum of 100 per cent of the capital expenditure on the line.

Owing to the partially developed state of large tracts in Assam, the immediate financial prospects of branch lines constructed in those tracts are less favourable than are the prospects of similar railways in other provinces, and with a view to improve this, the Assam Government have been authorized under the Government of India Resolution No. 1894/86 P., dated January 7, 1915, subject to the sanction of the Government of India in each case to supplement the financial assistance given by the Government of India to the extent of making good to the branch line company, for a fixed term of years, the sum necessary to increase the rate of dividend to 4½ per cent on the paid-up capital of the company, the period during which the Assam Government will undertake this liability being dependent on the circumstances of each case.

The part played by the District Boards of the Madras Presidency in availing themselves of these branch line terms deserves special mention. Under Section 57 (ii) of the Madras Local Boards Act (Madras Act V of 1884) District Boards were authorized to levy a tax not exceeding three pies in the rupee on the annual rent-value of all occupied lands to be utilized solely in the construction of tramways or railroads. Though this special cess has been withdrawn under the Revised Act of 1920 (*vide* Section 75 thereof), Section 113 gives wider powers to the District Boards in that Presidency. They are authorized with the sanction of the Government of India to utilize their funds (i) on the construction and maintenance of railways; (ii) on subscription to any debenture loan raised by the Government of India or any local authority or by any

company registered under the Indian Companies Act 1913 for the construction and maintenance of any railway which is likely to be of benefit to the district; and (iii) in guaranteeing the payment of interest on capital expended on any such railway. As noticed further on, these District Boards owned to the end of March, 1922, 237 miles of railway representing a capital outlay of over Rs. 121 lakhs.

Though the Government of India offered from time to time to assist Local Governments in the passing of legislation similar to that in force in the Madras Presidency, with a view to a local interest in the construction of railways being created and funds therefor being obtained, the response has not been satisfactory.

Compared with the rate of interest at which the Government of India were borrowing money in India, these terms proved attractive enough for a long time, and a number of branch line companies were accordingly floated. Their popularity may be judged by the statistics in Chapter IV. Some particulars of the more important companies will be found in Appendix IV. Within recent times however the conditions of the money market have changed, the price of money rules high and not to speak of new companies, the old companies themselves find it difficult to raise additional capital on the above terms for purposes of extensions or of new open-line works. They have been compelled to borrow money from banks or the Government as the case may be on the understanding that fresh capital by means of shares or debentures will be obtained as soon as the conditions take a turn for the better. At the same time it is obviously impracticable to alter the terms for the promotion of branch line companies when the conditions cannot be said to have yet become normal.

On the other hand, the policy of the Government in regard to branch line construction has not escaped adverse criticism.[1] The Mackay Committee recorded

[1] A Committee appointed by the Secretary of State for India in 1907, with Sir James Mackay (now Lord Inchcape) as Chairman, to report on Indian Railway Finance and Administration.

that, while it may on occasion be desirable to permit on branch line terms the construction of lines which are urgently needed, but which could not be included in the Government programme, this method of obtaining capital was not only expensive, inasmuch as a considerable sum of money had to be spent on promotion and preliminary expenses and a Board of Directors, etc., but also resulted in trouble. The Committee recommended that as far as possible the trunk lines should own as well as construct and work their branches. This branch line policy has been called in question by the Acworth Committee also. While admitting that it had enabled lines to be built which would otherwise not have been built, and had thereby helped considerably to develop the country, the committee held that it had no other advantage. In fact the committee was emphatically against it. The following excerpts from the committee's Report deserve attention :—

'The Branch Line Company is usually a fifth wheel to the coach. It implies in some cases a separate construction staff; it always implies a separate Board of Directors, and separate accounts. . . . It is further evident that the capital raised by a small private undertaking, even with a Government guarantee, will cost more than money raised directly by the State. As against this, a certain weight must in fairness be attached to the claim that the Branch Line Company obtains from local sources money that would never be subscribed to a Government loan. There may also be certain cases of a branch line or smaller gauge worked independently, where the branch line company can operate more economically than is possible to a main line. . . . If extensions are to be made by scores and hundreds of little independent companies, the resulting confusion will be inconceivable. Naturally each company, small or great, desires to reserve for itself what in the diplomatic world is called a sphere of influence; and jealously claims that, if any new-comer intrudes into that sphere, he shall pay toll to the original concessionaire. . . . Company A, for instance, affords a connection between two points. They are 100 miles apart as the crow

flies, and 150 miles by the company's road. A small independent company proposes to connect the two points by a direct line, which in India is known as a chord. Naturally the old company protests, and permission for the construction of the new line—however obvious be the public benefit involved—is either refused, or only given on a basis of elaborate accounting between the new company and the old for the profits which hypothetically would have belonged to the old line had the new line not been opened. . . .'

'Far from approving of a policy which increases the number of possible claimants for the traffic of a given area, we think the aim of the Government should be to reduce by amalgamation the number of existing companies. At the same time we ought to say that the opinion has been pressed before us that, unless separate companies are allowed to make branch lines, in some cases they will never be made at all. We therefore feel bound to record our opinion that, if the State cannot and will not provide adequate funds, enterprise in this direction should be encouraged.'

Subsequent to the report of the Acworth Committee, the construction of two lines serving coal-field areas by the agency of branch line companies on terms different from the branch line terms referred to above, was considered. But the negotiations fell through and as mentioned further on, their construction from programme funds has been taken in hand. For the time being, it may be said that railway construction by the agency of branch line companies has come to a standstill.

CHAPTER III

RAILWAY FINANCE

THE last of the contracts with the companies of the earlier guaranteed type expired in 1907 and since then all the main lines have been worked directly by the State or by English companies of the working type already described. The contracts with these companies lay down that at the option of the Secretary of State, the companies may be called upon to provide funds either by means of debentures or shares or stock and on such terms as the Secretary of State may decide, or that he may himself undertake to provide funds for extensions and open line works, the State being in the latter case entitled to interest thereon at a rate to be agreed upon from time to time before division of surplus profits. Notwithstanding this provision, the necessary funds have largely been found by the Government even for the lines worked by companies, with the result that the responsibilities for the provision of funds required for extensions and improvements have devolved mainly on the Government. The extent of the funds raised by the companies during recent years may be judged from the fact that only about £14½ millions (equivalent to about Rs. 21¾ crores) has been obtained by means of debentures during the period of fifteen years ending with 1921–22.

As regards expenditure on the working of these lines, the procedure is that all the earnings are required, under the contract in the case of companies and by executive order in the case of State-worked lines, to be paid into the Government treasuries in their entirety. Moneys required for expenditure may be drawn in accordance with the grants sanctioned by the Government of India, the net result being that both companies and State-worked railways have been absolutely dependent on funds furnished by the Government for their capital as well as

for their revenue purposes. The receipts and out-goings of the Railway Department under whose control railways are worked are merged in the general receipts and out-goings of the Government of India, and to a considerable extent the interests of the railways have been subordinated to the general revenue position of the country from year to year. After the budget for the year has been framed, if the revenue of any other department diminished or expenditure elsewhere increased, as for instance of the Army Department owing to any military operations, and it was anticipated that the balancing of the budget would be disturbed, the funds originally earmarked for capital purposes of railways have been reduced or the railways have been called upon to reduce their working expenses; if, later on, the position improved, the Railway Department has been furnished with more funds and expected to spend them. This method of providing funds for a large commercial department on a year to year basis and liable to such fluctuation was fraught with unhappy results, a standing instance of which as regards capital will be found in the history of the construction of the Itarsi-Nagpur Railway—a line 238 miles in length—which was commenced in 1908 and has not yet been completed. In the field of revenue expenditure, the result is noticeable in the arrears of maintenance and renewals which had accumulated at the close of the European War (1914-18).

This, in brief, is the system which the Acworth Committee condemned as a paralysing system which had not been adapted and developed to meet the requirements of a commercial enterprise of the first magnitude, and as responsible for the failure to provide railways with adequate funds for capital expenditure on extensions and developments and even for the essential operations of renewals and repairs. Before dealing further with this indictment, it is advisable to take a short retrospect.

As early as 1883 the Member in Charge of the Public Works Department in the Government of India advocated the placing of the grants for the Public Works Department, of which the Railways formed a branch, upon the basis of a quinquennial contract, similar to those made

for administrative purposes with the provincial Governments. In 1884 his ideas were further developed in the following terms and communicated to the Secretary of State, though they did not receive the support of the Government of India :—' The profits of railways should not, for a few years, be swallowed up in the general expenditure of the Empire, but should be devoted in one form or other to that extension which the country so urgently needs for its protection from famine, the development of its external commerce and the general enrichment of its people. In short, railways should breed railways. Such an arrangement would promote thrift in expenditure, furnish a stimulus to increasing receipts, as similar contracts in the case of provincial Governments have been found by experience to do, and also provide a means of railway extension sufficiently rapid but with the strict security for financial soundness which the contract limit would entail.'

This question continued to engage his attention, and in 1888, *apropos* of certain lapses in grant, he expressed himself in the following terms :—' Uncertain supplies of funds or of materials must lead to lapses and such supplies could not be turned on or off as readily as water from a tap. The procedure by which stores were obtained from England frequently involved delays which in turn generally implied lapses of the grant for the year ; these lapses were not necessarily granted in the next year and in consequence the programme of construction was thrown out.' He criticized the evil effects of sudden withdrawals and expansions of funds according to the financial or the political situation at the time, and added that ' large works, such as railways, cannot profitably be executed by driblets. Once started, economy is best secured by keeping the establishment at their full working power, by supplying materials in a regular flow at the time that they are required, and by completing sections as an aid to the rest. Starting and stopping work from time to time spasmodically, suddenly discharging labour carefully collected and trained, and as suddenly endeavouring to collect it, keeping highly-paid staff partially or wholly

unemployed for months, at one time sending out material for utilizing which there are no funds, at another time suspending work for want of material, and operating throughout on uncertain and fluctuating resources—this is a mode of business which no mercantile firm could pursue with impunity or would even contemplate seriously.'

These cries of the then Member for the Public Works Department fell on deaf ears. Both the Government of India and the Secretary of State were obsessed with other problems, e.g., famine, frontier anxieties and the vagaries of the exchange.

In 1899, as noticed in the Acworth Committee's Report, Col. Gardiner, then in charge of the Public Works Department, advocated that the financing of the Public Works Department should be a distinct branch of the Imperial finance, that the capital borrowed for it should be earmarked and that the amount to be raised should be regulated (subject to the general condition of the possible effect on the credit of the country, looking to whatever borrowings may be necessary and may be considered of prior importance) with reference to the amount it is desirable to spend in developing the country, and in meeting the requirements of already developed and paying projects. This view had the support of Lord Curzon, the then Viceroy, who recorded that the system under which the railways were financed seemed to him to be faulty and to be fatal to their development at the very time when development may be most needed, and that he was not in love with a system which rendered the railway policy wholly subordinate to the exigencies of the general financial position. These protests were of no avail and the fortunes of railways continued to fluctuate with the vicissitudes of the general finances.

If the provision of funds for capital purposes was in such a sorry plight, that for revenue purposes was no better. In times of bad harvests and consequent bad receipts in other Departments, railways were called upon to economise merely to restore the budget equilibrium. Wages of staff cannot be withheld nor can outlay on stores required for running trains, or what is called consumable

stores in railway parlance, be reduced; the inevitable result was that the allotment for renewals and repairs, or what is generally called programme revenue expenditure, came to be heavily curtailed. This process, carried on throughout the years of the war, mainly owing to exigencies of the general revenues, the available funds being required more urgently for purposes of greater moment, and in a less degree owing to the difficulties of obtaining the materials, e.g., locomotives, wagons, axles for carriages, rails, etc., from England, resulted in the railways being left in a bad condition of repair at the close of the war and utterly unable to cope with the traffic.

This is the system which the Acworth Committee condemned in such unequivocal terms, and the committee proceeded to consider the constitution of a system which would secure orderly and continuous progress in the development of the railway system in the future as far as could be foreseen.

The Committee did not think that the Indian Railways could be modernised and improved and enlarged so as to give to India the service of which it was in crying need or that the railways could yield to the Indian public the financial return which they were entitled to expect from so valuable a property, until the whole financial methods were radically reformed, and they held that the essence of this reform lay in (i) the complete separation of the railway budget from the general budget of the country and its reconstruction in a form which would free a great commercial business from the trammels of a system which assumed that the concern went out of business on each March 31, and recommenced *de novo* on April 1 following, and (ii) the emancipation of the railway management from the control of the Finance Department. The scope of this reform may best be described in the Committee's own words :—' We wish to disclaim any idea that the railway organization should be independent, an *imperium in imperio*. The Indian Government own the railways and they must control them. What we propose is in outline that the railways should have a separate budget of their own and assume the responsibilities for

earning and spending their own income. The first charge on that income, after paying working expenses, is interest on the debt incurred by the State for railway purposes. Whether the railways should pay precisely this amount of interest, or a larger amount in consideration of the fact that in earlier years taxation had to be imposed to meet that portion of the interest which the railway receipts did not then cover, or a smaller amount in consideration of the expenditure which the railways have since incurred for non-railway purposes, is a matter for argument. We have no wish to express a positive opinion, though we think there is much to be said for letting by-gones be by-gones and fixing the payment to Government at the same sum that the Government has itself to find at the present moment for interest on the railway debt. The point is that the Railway Department, subject to the general control of Government once it has met its liabilities to its creditors, should itself regulate the disposal of the balance, and should be free to devote it to new capital purposes or to reserves or to dissipate it in the form either of reduction of rates or improvement of services. Naturally the steps taken to raise new capital and in general the large questions of policy must continue to be controlled by Government, i.e., by the Viceroy's Council, the Legislative Assembly and, in the last resort, by the Secretary of State and the House of Commons.'

The Committee was fortified in this recommendation by the fact that a separate budget for railways was already in vogue in other countries, e.g., Switzerland, Italy, France, South Africa and Japan, and was found to work satisfactorily.

The Government of India proceeded at once to tackle this recommendation. They appointed a committee[1] composed of certain officials and certain non-official members of the Houses of legislature to deliberate upon it and to make their recommendations on this question of

[1] This Committee, called the Railway Finance Committee, with Mr. W. M. (now Sir Malcolm) Hailey as Chairman assembled in December, 1921.

the separation of the budget and on the requirements of railways in regard to capital expenditure during the next ten years. The Committee considered that the separation of the railway budget in the sense suggested by the Acworth Committee involved the surrender by the Central Government of railways as a source of revenue, that the Government of India had been accustomed to depend on a large amount of net gain from railways to balance their budget, that in fact while settling the details of the finances of the Central Government, when the reforms were inaugurated, Lord Meston's Committee assumed that the Central Government would derive a net revenue of no less than Rs. $10\frac{3}{4}$ crores from railways, and that to surrender this revenue would result in materially disturbing the financial equilibrium devised by Lord Meston's Committee. The Committee thought that no doubt this difficulty could be overcome by fixing upon an annual contribution from railways in aid of general finances, but that the circumstances of the last few years had been so abnormal and the uncertainty regarding the net receipts of the immediate future so great, that it would not be possible to calculate a figure on which any reliance could be placed as the basis of contribution, and that to secure adequate compensation to general revenues it might be necessary to fix on such a figure as it would be impossible for the railways to meet, except by an increase in rates and fares to an excessively high degree—an anticipation which has been amply justified by the fact that the working of railways resulted in a loss of Rs. 909 lakhs in 1921–22 and a gain of Rs. 122 lakhs in 1922–23. In these circumstances it was of opinion that the separation of the budget at the time was not a practical proposition, and that this and other cognate questions should be taken up later when conditions became more normal and financial equilibrium was re-established.

The Committee however realized that the underlying idea in the proposed separation of the budget was that there should be a definite programme of capital expenditure, and in consequence a definite programme of borrowing for railway purposes, though this did not mean necessarily that the railway department would raise

separate loans apart from the general State borrowings. It was satisfied in regard to the need of rehabilitation and improvement of existing lines. It accepted that it was not merely a question of buying more wagons and locos, but that lines must be doubled, bridges strengthened, yards remodelled and railways generally fitted to handle more traffic, and that a radical increase in the provision of facilities of all kinds for third class passengers was needed. The Committee was thus satisfied with the need for larger capital funds for the immediate rehabilitation and betterment of existing lines and completion of lines under construction, and approved of a five-year programme of Rs. 30 crores per annum, with the proviso that there was to be no lapse of money voted for any one year but not spent within that year, and that such sums should be carried on to the credit of the railway administration up to the limit of the total amount fixed for the quinquennium.

The Committee deprecated the allotment of any funds for new lines with the possible exception of certain lines intended to tap new coal-fields, which recommendation has since materialized in the decision to construct the Hesla Chandil Railway and the Cuttack Talchir Coalfield Railway out of programme funds.

It was at the same time recognized that this certainty of capital funds would not remove all difficulties. Though new lines involved the expenditure of money on capital account alone, the majority of works relating to open line and renewals of rolling-stock involved considerable expenditure chargeable to revenue account, and the economical use of capital funds required that there should also be a certainty of funds being available on revenue account. It was felt that this could be secured only by the formation of a Depreciation Fund for each railway. Further consideration of the Depreciation Fund may be deferred and the subject of finance pursued.

A resolution was accordingly passed by the Legislative Assembly recommending that funds to the extent of Rs. 150 crores should be devoted to railway capital purposes during the quinquennium commencing from the year 1922-23. The actual expenditure during the year

1922–23, however, fell considerably short of this sum, this result being due partly to a drop in prices and partly to the railway administrations not being ready with their plans and estimates to arrange for the early supply of materials and to carry out works.

Towards the close of the year (1922–23) the Inchcape Committee[1] concluded its labours and issued its report, and as this is likely to have a far-reaching effect on the recommendations of the Acworth Committee, it is as well to touch upon the recommendations of the former, however briefly, though sufficient time has not elapsed to permit of action being taken thereon and to make their effects felt.

The Inchcape Committee was painfully impressed with the results of working of railways during the last few years, and gave expression to the opinion that the country could not afford to subsidize railways and that steps should be taken to curtail expenses in order to ensure, not only that the railways as a whole are placed on a self-supporting basis, but that an adequate return is obtained on the large capital expenditure incurred by the State. Assuming a return of 5½ per cent per annum on the capital outlay already incurred, the Committee calculated that after the working expenses are met and all interest, annuity and sinking fund charges are paid, there would be a balance of Rs. 8½ crores accruing to Central Government. As regards individual railways, the Committee held that, when capital was so urgently required by some railways for remunerative purposes, it was hardly proper that large sums of money should be borrowed at the present high rates of interest for expenditure on railways which are not only unable to earn 5 per cent on their present capital, but which have also to be subsidized by the general tax-payer. It laid down the happy dictum that further expenditure on such railways can only be justified if it can be satisfactorily demonstrated that the expenditure will increase the net earnings of the railway

[1] The Indian Retrenchment Committee was appointed, with Lord Inchcape as Chairman, to make recommendations for effecting all possible reductions in the expenditure of the Central Government. The report was published on March 1, 1923.

sufficiently to cover the additional interest involved. Though this test is hardly capable of strict application in every case in practice, it cannot but be conceded that a general observance of it, though not in meticulous detail, should go a long way towards improving the fortunes of individual railways.

Such a definite policy will, it may be expected, react considerably on the scope of the quinquennial programmes of individual railways. As pointed out in the report, the programmes contemplated an outlay of over Rs. 60 crores on what, considered by the above test, have been styled by the Committee as unremunerative lines of railway. The Committee suggested also that, if the full amount of the capital cannot be employed on remunerative works on open lines, it was a matter for consideration whether some of it could not, with advantage, be devoted to the construction of new lines promising an adequate return, and this suggestion has already begun to materialise, as will be seen in the next chapter.

Before concluding this chapter, it only remains to make a brief reference to the further progress which has been made in the matter of a separate railway budget. The framing of a separate railway budget requires an amendment of the Government of India (1919) Act, and as this would take time, it has been proposed, without impairing in any way the control of the Government of India and of the Legislative Assembly, to secure the same result by means of a convention under which, to quote the words of the Finance Member in introducing the budget for 1924-25, the tax-payer, instead of paying the whole of the expenses and taking the whole of the incomings of the railways, will enter into a bargain with them to receive from them—(*a*) a sum sufficient to pay in full the interest on the capital he has invested in the commercial lines ; (*b*) an additional dividend of 5/6 per cent on that capital ; and (*c*) one-fifth of any surplus earnings that may be secured in addition. In return the railways will be left to carry on their business with the right to retain the surplus and to apply it to railway purposes, first of all for creating reserves and then by using those reserves to improve the services rendered to the public,

and to reduce the price which they charge for their services. The tax-payer will thus secure a regular and increasing contribution from his investment, largely independent of the fluctuations in railway receipts and expenditure, while the railways will be able to spend money according to their real needs. This proposal has been referred to a committee of the Legislative Assembly for further examination.

CHAPTER IV

OPEN LINES

THE first line of railway was opened, it will be recollected, in 1853, and by 1880 the Indian railway system had attained to a total length of about 9,000 miles. The Famine Commission appointed in 1880 considered that the country could not be held to be safe from famines in the future until an aggregate of 20,000 miles was reached. At the end of 1902[1] when the late Mr. Robertson was carrying out his investigation into the administration and working of Indian railways, the railways in India totalled 25,936 miles, and that officer, after comparing the provision of railways in India with that in other parts of the world, recorded his opinion that India did not appear to him to be adequately provided with railways and it seemed to him that more rapid progress should be made in their construction so as to open up large tracts which were then entirely deprived of suitable means of communication.

By 1908, when the Mackay Committee sat, the system had grown to 30,000 miles nearly, and the Committee was of opinion that even an estimate of 100,000 miles of railway, to which more than one witness looked forward, was short of what would ultimately be found to be necessary in India, and that there were fruitful fields for large reproductive expenditure on railways in the country for many years to come, the only effective limit on the amount to be spent in any year being for many years the amount that could be provided. It recommended that capital expenditure should be forthwith raised to £12½ millions per annum, and was of opinion that a programme of even £20 millions was not excessive. At the end of March, 1922, the total length of the open system was 37,266 miles.

[1] Mr. Thomas Robertson was appointed as Special Commissioner by the Secretary of State for India in 1901 to enquire and report on the Administration and working of Indian Railways.

The following comparison[1] with the extent of railway provision in other countries will be interesting :—

Mileage Open

Per 1,000 square miles of territory

Belgium	396	Japan	32
Germany	196	New Zealand	30
United Kingdom ...	195	Union of South Africa ...	24
France	130	India	20
United States of America.	70	Argentine	19
		Canada	11

Mileage Open

Per 100,000 of the Population

Canada	465	Belgium	62
Argentine	263	Germany	60
New Zealand	239	United Kingdom ...	50
United States of America.	224	Japan	15
Union of South Africa ...	164	India	11
France	70		

Judged by either standard it will be seen that India is poorly provided with railways.

Another way of measuring the adequacy of railways is by a comparison of the total revenues and expenditure of the several countries or of the amount of their standing debts. Owing to the War of 1914-18 the figures of the European countries for recent years are abnormal, and a comparison of these figures or of the figures prior to the war will not be of any real value.

It is of course also necessary to see how the services rendered by the railways in the several countries compare. Figures of ton-miles and of passenger-miles are not available for all the countries and a comparison can therefore be made only with reference to the total number of passengers or of tons of goods carried :—

No. of passengers carried per mile of railway open

United Kingdom ...	67,600	United States of America	4,800
Japan	61,500	New Zealand ...	4,600
India	14,800	Argentine	39
Union of South Africa.	5,300	Canada	11

[1] According to the latest issue of the *Statesman's Year Book*.

Tons of goods carried per mile of railway open

United Kingdom ...	13,650	Canada	2,200
United States of America	8,970	New Zealand ...	1,990
Japan	8,100	Argentine	1,460
India	2,310	Union of South Africa.	1,330

The total values of imports and exports carried per mile open are given below.

(In thousands)	£[1]		£[1]
United Kingdom ...	77·0	India	15·0
China	43·7	Argentine	11·8
Belgium	42·5	Union of South Africa ...	9·8
Japan	40·7	Canada	7·5
New Zealand ...	27·8	Germany	6·6
France	20·9	United States of America.	5·3

Statistics in regard to (i) mileage open, (ii) capital outlay thereon, (iii) gross earnings, (iv) working expenses, (v) percentage of working expenses to gross earnings, (vi) net earnings as a percentage on capital outlay, for a series of years, will be found tabulated in Appendix I. They can also be seen graphically from the diagram.

The following statistics indicating the measure of progress achieved by the agency of railways in India will also be interesting :—

(In Lakhs)

—	Number of Passengers	Passenger earnings	Passenger miles	Goods Tons	Goods Ton Miles	Goods earnings
		Rs.				Rs.
1880	492	457	26,843	104	18,299	923
1890	1,141	626	47,791	226	35,097	1,300
1900	1,763	895	68,398	429	66,464	2,037
1910	3.716	1,712	134,325	656	120,929	3,043
1919-20	5,200	3,316	206,146	876	204,017	4,712
1920-21	5,592	3,477	209,850	875	199,209	4,797
1921-22	5,613	3,429	197,946	862	177,360	4,952

Further details by classes of passengers and certain commodities of goods traffic will be found in Appendix II.

[1] Based on the information contained in the latest issue of the *Statesman's Year Book*

STATISTICS OF IMPORTS AND EXPORTS

(In lakhs)

	Merchandise			Treasure	
—	Imports Rs.	Exports Rs.	Total Rs.	Imports Rs.	Exports Rs.
Decennial average					
1879-80 to 88-89 ...	5,583	8,386	13,969	1,264	148
1889-90 to 98-99 ...	7,222	10,626	17,848	1,640	504
1899-1900 to 1908-09.	10,226	14,518	24,744	3,108	1,078
1909-10 to 10-11 ...	15,546	22,503	38,049	4,313	781
1919-20	22,170	33,603	55,773	7,824	1,368
1920-21	34,714	26,764	61,478	3,476	2,617
1921-22	28,041	24,866	52,907	3,130	1,908

The net receipts which accrued to the Government of India from the working of railways after payment of interest, sinking fund and annuity charges, charges on account of Government supervision and control and other sundry items are as follows :—

	£		£
		1911-12 ...	3,787,770
1904-05 ...	2 097,589	1912-13 ...	4,803,354
1905-06	1,993,826	1913-14 ...	4,789,533
1906-07	2,307,673	1914-15 ...	2,158,034
1907-08	1,563,002	1915-16 ...	4,075,438
1908-09	—1,242,250	1916-17 ...	7,481,875
1909-10	824,922	1917-18 ...	14,227,385
1910-11	2,017,496	1918-19 ...	10,568,097

Measured by any standard the Indian railway system as a whole has justified its existence. A few words may however be added. The value of railways in reducing famines and mitigating the effects thereof when they do

occur has long been recognized. Their effect is also seen in the facilities they afford for the carriage of goods and produce from places where they are in plenty to places where they are in greater demand even in ordinary times, and in the consequent equalization of prices. These all tend to the prosperity of the country. So far as the Government are concerned, besides the actual return in the shape of net earnings, they receive indirect benefits by way of increase in the general revenues of the country; for every improvement in the communications of a country results in a development of trade, and development of trade results in an increase of Government revenues. In fact railway development and general prosperity and advancement of the country go hand in hand.

Considerable evidence was placed before the Acworth Committee tending to show the indirect benefits to the economic development of the country from extension of railway facilities and the resultant corresponding increase in the taxable capacity. Though these benefits cannot be reduced to precise statistics, there seems to be no reason to doubt that a rise in the prices of agricultural produce, an augmentation in land revenue, general increase of revenue in other directions as well as improvement in the economic conditions of the people have followed in the wake of railway development.

Mention should also be made of the services rendered by the Indian railways towards the successful prosecution of the War of 1914–18. Not only did the railway administrations carry out the required movements of the overseas expeditionary forces rapidly but also constructed hospital trains, ambulance trains, armoured motor-cars and armoured trains and manufactured high explosive shells in their workshops. They set free temporarily over 300 civil officers and 2,000 subordinates besides officers of the Corps of Royal Engineers for service of various kinds in connection with the War in East Africa, Mesopotamia and elsewhere. Over 400 miles of open line were dismantled and the materials thus obtained, as well as rolling-stock and stores in hand, were also sent out.

The Jodhpur and Bikaner Darbars manage also 124 miles of railway, the property of the Government of India, and 100 miles owned by a branch line company. Similarly the Mysore Darbar manages 38 miles of railway belonging to a company.

The distribution of the open mileage by number of tracks is as follows :—

	Miles
Single	34201·89
Double	2967·24
Treble	30·88
Quadruple	62·57
Quintuple	2·24
Sextuple	0·85
Total ...	37265·67

It is needless to add that the lines having more than two tracks have been laid in the neighbourhood of Calcutta and Bombay and carry a large suburban traffic.

The distribution of gauges is as follows :—

	Miles
Broad gauge 5′ 6″	18318·56
Metre gauge 3′ 3-3/8″	15270·93
Narrow gauge 2′ 6″	3049·77
,, 2′ 0″	626·41
Total ...	37265·67

and for a vivid description of this position the map may be seen.

Among lines under construction may be mentioned the Khyber Railway, a strategic line of great importance 26·84 miles long running from Jamrud to Landi Khana and estimated to cost about Rs. 240 lakhs. It is an expensive line due to heavy gradients and a number of tunnels, which aggregate over 2½ miles and are alone expected to cost more than half a crore of rupees.

The construction of the Nagpur-Itarsi Railway with a branch to the Pench Valley Coal-fields has been in progress since 1908. The line is 238 miles in length and

when completed will, in conjunction with the Ballarshah-Warangal line referred to further on, form part of a direct through north-and-south broad gauge connection. More than half the line has been completed and opened for traffic and an additional outlet furnished for the Pench Valley Coal-fields, an important source of coal supply. The construction is expected to be completed in 1924.

The construction of the Bombay overhead connection from Tank Bunder on the Bombay Harbour Branch, 2·13 miles in length, was commenced in 1912, and is estimated to cost over Rs. 96· lakhs. When completed this line will provide easy rapid communication between the business centre of Bombay and the cotton market and warehouses near Mazgaon.

A re-arrangement of the railway lines and junction arrangements in the Delhi area with a view to meeting the traffic conditions brought about by the new capital at Delhi has been under consideration. The diversion of the Agra-Delhi Chord Railway as a first step has been taken in hand, but further progress will depend on the development of the new capital and the traffic requirements to be met.

Amda Jamda Railway is a line 68 miles in length and estimated to cost over Rs. 126 lakhs. It will give access to rich iron ore deposits in Singhbhum District.

The Burma Government, having secured large profits from rice control, have interested themselves in the construction of agricultural railways. The lines under construction are Alon-Saingbyin, Pyinmana-Taungdwingyi and Moulmein-Ye Railways, totalling 182 miles in length and estimated to cost about Rs. 175 lakhs. The first of these has recently been opened for traffic and the other two are under construction by the Burma Railways Company. They are intended to be provided with rolling stock by the Burma Railways Company and worked by it, the net profits of working being paid to the Burma Government. The question of their purchase by the Central Government is under consideration.

The construction of a line from Raipur to Vizianagram with a harbour at Vizagapatam has been under consideration for a long time. In fact the construction of a line

310 miles in length and estimated to cost Rs. $2\frac{1}{2}$ crores was sanctioned by the Secretary of State in 1915, and the section from Vizianagram to Parvatipur, 48·70 miles, was opened for traffic on April 1, 1909. Further progress has been held up, first owing to scarcity of funds and later to the pre-occupations of the War. The completion of the line is now linked up with the question of constructing a harbour at Vizagapatam.

Another line which has also been under consideration for a long time is a line to link up the two arms of the Great Indian Peninsula Railway and the Nizam's Guaranteed State Railway. Such a connection was recommended as long ago as in 1903 in the late Mr. Robertson's report. This recommendation has now a reasonable prospect of being fulfilled, as a line from Ballarshah to Warangal about 150 miles in length is in course of construction, out of funds provided by His Exalted Highness the Nizam of Hyderabad.

As remarked further on, the State railways have been carrying out prospective surveys of different areas in the Karanpura and Talchir Coal-fields with a view to acquiring suitable collieries for railway working. If railways are to get the full benefit of such acquisitions and if the coal existing in these coal-fields is to be made readily available, it is necessary that railway lines should be carried into these areas. With this object the construction of the Cuttack-Talchir Coal-field Railway—a line 65 miles long and estimated to cost Rs. 81 lakhs—has been decided upon. Another important line is the Hesla Chandil Railway which is intended to relieve congestion of coal traffic on existing lines. This line is expected to cost about Rs. $1\frac{1}{2}$ crores.

Two other works which are engaging the attention of railway authorities are the electrification of the suburban sections of the Great Indian Peninsula Railway and the Bombay–Baroda and Central India Railway round Bombay. The Great Indian Peninsula line from Kalyan to Byculla is already quadrupled, and though the line from Victoria Terminus (Bombay) to Byculla has only a pair of tracks, the provision of more lines is in progress. The provision of better terminal facilities at Victoria

Terminus and the remodelling of the Mazgaon Station are well in hand. Similarly the Bombay–Baroda and Central India Railway will before long have been quadrupled as far as Borivli—a distance of 23 miles from Colaba (Bombay). Though these measures will considerably relieve the present congestion of traffic, they are not deemed sufficient for the increase which may be expected in the course of the next few years, both on account of the normal expansion, and on account of the completion of the various development schemes in progress in and around Bombay. The only remedy is the electrification of these suburban services, which will permit of more frequent and more rapid train service and practically increase the working capacity of terminal stations. As the works are anticipated to be financially justified they may be expected to be proceeded with.

It has since become clear that the full amount of Rs. 150 crores programmed for expenditure on open lines of railway during the quinquennium commencing from 1922-23 is not required, and that some of the money can be utilized for new construction. The following projects will therefore be started during the year 1924–25 :—

(1) Villupuram-Trichinopoly Chord. This is a line 100½ miles long and estimated to cost Rs. 169 lakhs. Besides forming an alternative route between Madras and Trichinopoly and thereby avoiding the necessity of doubling the existing line for many years, it will open up and develop a new and populous part of the country.

(2) Virudupatti-Tenkasi Railway is a line 76½ miles in length and estimated to cost Rs. 58 lakhs.

(3) Central India Coalfield Railways connecting Daltonganj and Hutar (17 miles), Hutar and Hesla (103 miles) and Hutar and Anuppur (188 miles). These lines are estimated to cost Rs. 915 lakhs and will serve promising coal areas lying between the East Indian and the Bengal Nagpur Railways running westwards from the Jherria coalfields, thus rendering available to Bombay and the west of India supplies of coal some 300 miles nearer than Jherria and Raniganj. They will also considerably reduce

the cost of transporting coal for the use of the Great Indian Peninsula and the Bombay-Baroda and Central India Railways from their present sources of supply.

(4) Sibsagar Road to Khewang, a line thirty miles long and estimated to cost about Rs. 28 lakhs. It will afford easy communication to a prosperous tea-growing area and open up a considerable portion of paddy-growing country.

(5) Shoranur-Nilambur Railway, 41 miles in length and estimated to cost about Rs. 60 lakhs. The line is required mainly for administrative convenience.

(6) Bauktaw-Tadagale, 3½ miles long, and estimated to cost Rs. 5 lakhs, is the first section of a line projected up to Mingaladon. This line is intended to assist in the expansion of the city of Rangoon.

The last two projects mentioned above are not expected to give an adequate return on the capital outlay for some years to come, and as the Local Governments are interested in their early construction, they have given a guarantee to the Central Government that they would pay to the latter losses in working the railway as also interest on capital spent. It may therefore be inferred that the present policy of the Government of India is, to construct out of State funds remunerative lines of railway as also unremunerative lines whose construction may be desired for other reasons, provided in the latter case a guarantee to make good losses in working and interest on outlay is forthcoming.

Among other lines of railway which have been recently surveyed or are otherwise under consideration may be mentioned the following :—

(1) Doubling of the line from Madras to Villupuram.

(2) Chord line from Trichinopoly to Maniyachi *via* Karaikudi and Manamadura.

(3) Line from Arantangi to Karaikudi.

(4) Hukong Valley Railway to afford a connection between the railways in India and Burma.

(5) Tube railway in Calcutta to connect Howrah with Calcutta.

(6) Hardwar-Karnprayag railway which will facilitate pilgrimage to Badrinath.

(7) Agra-Karachi Chord Railway to provide a through broad gauge short-cut from the United Provinces to the Karachi seaboard.

(8) Narowal-Amritsar Railway.

(9) Survey of a line to connect Bombay and Sind.

It may be added that recently a railway officer investigated the railway requirements of the area in the Madras Presidency served by the South Indian Railway and that his report deals with twenty-six projects, some of which have been referred to above. A further impetus to railway development may be expected from the decision of the Madras Government to construct harbours at Tuticorin and Cochin and to develop these ports.

CHAPTER V

ROLLING STOCK

THE progress in the supply of rolling-stock will be seen from the following statement :—

Year			Loco-motives	Coaching Stock	Goods Stock
1880	...	...	2,206	6,626	38,823
1890	...	...	3,747	9,075	70,668
1900	...	...	4,844	17,750	89,990
1910	...	.	7,100	20,382	1,48,564
1919-20	...	...	8,982	24,704	1,94,638
1920-21	...	...	9,365	24,951	2,01,194
1921-22	...	...	9,743	25,240	2,07,516

It may be added that the wagons are all owned by the railways concerned, and that the private ownership of wagons which obtains in England and the United States of America has so far been avoided in India, with admittedly happy results.

In regard to the adequacy of the existing rolling-stock, the Acworth Committee and the Inchcape Committee appear to have held divergent views ; the former recommended that additions were necessary, whereas the latter was inclined to the view that the duty done by the rolling-stock, locomotives and wagons in particular, on certain lines was not as large as several years ago, and that therefore further additions were not such a crying need. The present tendency is to get the largest amount of work out of the existing stock, one of the devices being the wagon pool which was brought into force some years ago. With a view to furthering this end, standardisation of stock and of their parts is being strenuously aimed at.

The construction of rolling-stock and their repairs and maintenance, as also the works incidental to the maintenance of the permanent-way, throw very onerous duties

on railway workshops, and the questions of additional workshops and extension of facilities in existing shops are both receiving attention. One of the most important works of this kind now under consideration is the construction of workshops for the South Indian Railway at Trichinopoly which will deal with both Broad Gauge and Metre Gauge stock. The scheme is estimated to cost over Rs. 3 crores and involves also the conversion of the Metre Gauge line from Erode to Trichinopoly to Broad Gauge. It also includes provision for quarters for the staff as well as the usual amenities in the form of schools, recreation grounds, etc. The whole colony is intended to be supplied with an underground system of drainage.

The workshops near Lahore are insufficient for the requirements of the North-Western Railway, and in view of the rapid development of Karachi as a port and of the traffic moving in that direction, this railway has under consideration the construction of an up-to-date locomotive carriage and wagon shop near that port. The Bombay, Baroda and Central India Railway is proposing to construct new workshops at Dohad, a station 338 miles from Bombay, in order to relieve congestion in its workshops at Parel. The Oudh and Rohilkhand Railway, the Eastern Bengal Railway and the Bengal Nagpur Railway are carrying out necessary extensions and improvements in their shops situated at Lucknow, Kanchrapara and Kharagpur respectively.

CHAPTER VI

WORKING RESULTS

APPENDIX I, containing statistics for a series of years in regard to (i) gross earnings; (ii) working expenses; (iii) percentage of working expenses to gross earnings; and (iv) net earnings as a percentage on the total capital outlay on open lines, taking all the railways in India as a whole, has already been referred to.

The question of rates and fares is dealt with in a later chapter. It will suffice to indicate here the results of actual working. The average lead per passenger and the charge per mile as also the average lead per ton of goods and the charge per mile are given below for a series of years :—

	PER PASSENGER		PER TON	
	Average lead in miles	Charge per mile in pies	Average lead in miles	Charge per mile in pies
1906	39·4	2·46	166·0	5·42
1907	38·7	2·44	174·6	5·18
1908	37·7	2·44	159·1	5·09
1909	37·5	2·43	153·4	5·78
1910	36·2	2·45	184·3	4·83
1911	36·9	2·47	187·4	4·73
1912	36·7	2·45	199·2	4·66
1913–1914	38·3	2·45	188·1	4·64
1914–1915	35·5	2·44	188·0	4·43
1915–1916	35·6	2·44	208·0	4·34
1916–1917	36·8	2·48	230·1	4·01
1917–1918	37·7	2·99	245·9	4·08
1918–1919	39·2	3·08	242·9	4·26
1919–1920	39·6	3·09	232·3	4·43
1920–1921	37·5	3·18	227·6	4·62
1921–1922	35·3	3·33	205·6	5·36

It will be seen that during the last few years there has been an increase in the average charge per passenger-mile accompanied by a *pari passu* reduction in the average lead in miles per passenger, whereas previously both of these items have remained fairly uniform. Similarly in the case of goods traffic during the last few years there has been an increase in the average charge per ton-mile with a *pari passu* decrease in the average lead, whereas previously there was a steady tendency towards an increase in the lead with a reduction in the charge per ton-mile. These results are apparently attributable to the increases in the rates and fares which have come into force in the last few years; and deserve careful study at the hands of railway administrations.

Before passing on to a consideration of working expenses, it only remains to draw attention to the growth in passenger traffic. The detailed figures will be found in Appendix II. It will be seen that the number of third class passengers has grown five times during the last thirty years and that in 1921-22 it was twenty-seven times the number of passengers carried in the other three classes, the earnings being in the proportion of 26 : 5.

The growth of working expenses is deserving of some detailed consideration. During the first years of railway working the percentage of working expenses to gross earnings ranged between 60·34 during 1863 and 52·28 in 1873, the average of the percentages during the years 1860 to 1873 being 55·76. During the period 1874 to 1890, the percentage ranged between 51·84 and 44·47 (quite exceptional), the average of these percentages being 49·33. During the next eighteen years there was a further fall in the percentage, the average of the percentages during the period 1891 to 1905 being 47·48. Since 1906 there has been a tendency for the percentage of working expenses to increase.

During the years of the war there was a hiatus in this growth, mainly due to the fact that grants were cut down and English materials, on which the maintenance of permanent-way and rolling-stock mainly depended, were hard to procure, with the result that the proper maintenance of railways fell into arrears. After the war was

over, when materials could be obtained and maintenance was resumed, the working expenses went up with a bound, the percentage during 1919-20 being 56·81 and the percentages for the next two years still higher.

To what is this growth in expenditure due? Since the war, wages and the prices of commodities have gone up all the world over and therefore the materials used in maintaining the railway property and in working the train services have cost very much more. The next item is the bill for fuel. Taking the figures relating to State railways only, both State-worked and company-worked, the expenditure on fuel compares as follows:—

(In lakhs)

——	Expenditure	Fuel consumed
	Rs.	Tons
1918-19	503	60·0
1919-20	567	61·6
1920-21	601	62·9
1921-22	976	62·0

This increase in the amounts of fuel bills during the years prior to 1921-22 is due to the rise in prices and to a small extent to the larger quantity of coal consumed per train-mile, the latter result having followed the necessity for making use of inferior classes of Indian coal. The very high increase in the expenditure during 1921-22 was on account of a fairly large quantity of imported coal having had to be used owing to threatened shortage of supplies due to labour conditions in the Indian coal-fields.

Some railways, notably the Madras and Southern Mahratta, the South Indian and the Burma Railways, use fairly large quantities of wood fuel, the quantities

consumed by them during the last few years having been as follows :—

	(In lakhs) Tons
1916-17	1·03
1917-18	2·21
1918-19	3·07
1919-20	3·06
1920-21	2·01
1921-22	1·92

Oil fuel also has, of late, come into use. In view of the fact that oil can be landed at Karachi much more readily than coal can be carried by rail from the coal-fields in the east of India, oil fuel, as a means of reducing the demand on coal, has had considerable attraction for the North-Western Railway. Investigations have been completed and both the Great Indian Peninsula and the North-Western Railways have converted a number of their locomotives for oil consumption. They have also entered into long term contracts for the supply of about 150,000 tons annually. The following are the figures of consumption on the two railways during recent years :—

	(In thousands) Tons
1916-17	6
1917-18	28
1918-19	45
1919-20	49
1920-21	61
1921-22	87

Cost of staff is the next important item. This does not fall far short of one half of the total working expenses. The temporary increases in rates of pay which were given to the staff during the later years of the war on account of the rise in the cost of living were consolidated and permanent increases of pay were given to all in 1920-21. The conditions were then abnormal, and it may now be questioned whether the time was opportune for fixing rates of pay permanently at a higher level. But the Public Services Commission finished its labours and issued its report in 1916, and the Government having started revision of the rates of pay of all their services in the light of the recommendations of the Commission and of the further progress of events, railways could not very well have lagged behind without causing serious discontent among their staff.

Cost of special repairs and renewals of rolling-stock, permanent-way and bridges, as distinct from ordinary maintenance, is booked under a head of expenditure called 'Programme Revenue', and the growth of expenditure under this head will be seen from the following figures, which relate to State lines only:—

	(In lakhs) Rs.
1917-18	145
1918-19	200
1919-20	359
1920-21	506
1921-22	763
1922-23 (revised estimates)	899
1923-24 (estimate)	900

In arriving at the results of working of State-railways taken by themselves, there are certain items of expenditure which have to be taken into consideration, and these will now be dealt with in some detail.

The results for the last four years are tabulated below:—

——	(In thousands)			
	1919-20	1920-21	1921-22	1922-23
	RS.	RS.	RS.	RS.
Gross Traffic receipts.	7,90,870	8,09,775	8,16,927	9,32,214
Subsidized Companies—Government Share of surplus profits	3,465	2,775	2,474	2,641
Total receipts ...	7,91,336	8,12,550	8,19,401	9,34,855
Working expenses ...	4,54,556	5,45,137	6,56,678	6,59,616
Surplus profits paid to companies	20,092	17,251	10,640	6,940
Interest on debt ...	1,31,934	1,31,903	1,56,348	1,63,447
Annuities	50,363	39,0[illegible]7	50,784	51,339
Sinking Fund ...	3,836	3,148	4,335	4,714
Interest on Capital contributed by Companies ...	31,656	24,800	33,517	33,556
Land and Subsidy ...	362	510	720	943
Miscellaneous Railway expenditure ...	8,064	—5,616	—2,722	2,100
Total charges ...	7,00,863	7,56,140	9,10,300	9,22,655
Net result	93,472	56,410	—90,899	12,200

These results influenced the Government in deciding upon an increase in the rates and fares which is referred to in greater detail further on. The results being the difference between the incomings and outgoings, it is not sufficient to look at the incomings only. Economies in expenditure have been receiving the attention of railway administrations for some time, and the necessity for this was further emphasized in the report of the Inchcape Committee. The Committee laid down the principle that the relation of working expenses to revenue should be so adjusted as to provide for an adequate return on capital invested, and its recommendation to reduce working expenses during 1923-24 to the extent of Rs. 3½ crores, was carried out by reducing

Programme Revenue expenditure and reduction of staff. Further avenues of economy are being explored and the prospect of the railways becoming once again a source of considerable assistance in balancing the general budget of the country has become more promising.

A few words may now be said in explanation of some of the items of expenditure appearing on the previous page.

In effecting the purchase of certain railways, the Government agreed to pay part of the purchase-price by means of terminable annuities. In some cases a portion of the annuities was converted into India stock and India stock was also created for liquidation of debentures raised by certain companies. The Government are required to build up sinking funds for the eventual discharge of these stocks. The annuities now subsisting are in respect of the East Indian, the Eastern Bengal and the Scinde Punjab and Delhi railways. These payments are of course partly of the nature of capital charges and partly of revenue, but have hitherto been charged wholly to revenue. In the budget session of March 1923, the feeling of the Legislative Assembly was very strong that the capital portion should not be charged to revenue, the object being to reduce the demand for revenue expenditure and thereby to secure the balance of the budget without additional taxation. The question has since been reconsidered and in the budget for 1924–25 it is only the portion of the annuities which represents interest that has been treated as a revenue charge.

Land, the cost of which is charged to revenue, represents land given free of cost to subsidised companies in terms of the contract—this free gift being one of the concessions intended to encourage railway construction, and being of long standing. The question has often been raised why this charge should not be treated as a capital charge. The real reasons for this procedure are that the amount involved from year to year is comparatively small, the charge during 1921–22 having been only Rs. 4·75 lakhs, that the Government has generally no capital interest in such cases, so that if a capital account

is opened it must be for this charge only and would not be useful for any other purpose. It may also be noted that the practice in successful commercial concerns frequently is to treat charges of a capital nature as charges to revenue.

Miscellaneous railway expenditure comprises expenditure on surveys, cost of Government supervision, audit and control, i.e. by the agency of the Railway Board, Government Inspectors and Government Examiners of Accounts, and sundry charges. The cost of surveys, though treated as a revenue charge in the first instance, is transferred to capital when the results of the survey are made use of and a railway project is taken in hand. If these results are made use of by a company, the company is required to pay the expenditure incurred on the survey. In return for the supervision, audit and control exercised by Government over company-worked lines, a charge in most cases of Rs. 40 per half year and in certain other cases of Rs. 20 per half year, is levied per mile of line open, and these recoveries are credited under the head Miscellaneous Railway Expenditure.

CHAPTER VII

MANAGEMENT

As already stated the total mileage owned by Government at the end of 1921–22 was 26,804 miles, of which 7,698 miles were worked by State and 19,106 miles by companies. The exact status of these companies, which may be described as working companies, as distinct from the guaranteed companies of earlier days, has been described in a previous chapter. The names of the several companies as now subsisting, the dates on which they were constituted and the earliest dates on which their contracts can be terminated are given below :–

Name of the Company	Date of formation	Earliest date of termination	Amount of share capital paid up	[1]Other money raised by the Company
			£(000)	£(000)
East Indian Railway ...	1879	31-12-1924	6,550[2]	18,500
Great Indian Peninsula Railway ...	1900	30- 6-1925	2,575	3,500
Burma Railway ...	1897	31-12-1928	3,000	1,250
Assam Bengal Railway ...	1892	31-12-1931	1,500	731
Madras and Southern Mahratta Railway ...	1908	31-12-1937	3,500	4,976
Bombay, Baroda and Central India Railway.	1907	31-12-1941	2,000	1,000
South Indian Railway ...	1890	31-12-1945	1,000	3,213
Bengal Nagpur Railway...	1887	31-12-1950	3,000	7,096

Thus the dual system of management, viz. by companies and by State, has been in existence for a long time and accepted as working satisfactorily. The underlying ideas in the earlier days were that by this means State-debt and State-establishment were kept at a moderate

[1] Raised by means of debentures and debenture stock
[2] The equivalent of annuities held in abeyance.

level and that the existence of the two systems encouraged a healthy rivalry between State lines and company lines both as regards initial cost of construction and in working. Thus in 1889, the Secretary of State for India held that the choice between direct State-management and that of companies must depend on the circumstances of each case, that while generally the multiplication of agencies should be avoided—wherein one may see the germ of the idea of grouping—both might still be employed. He was inclined to the view that it was expedient, as far as possible, to enlarge the scope afforded by railways in India for private enterprise, and thus diminish the burden and responsibilites of Government and promote decentralization. The tendency thus was to encourage both forms of management, and in the words of a shrewd observer[1] it may be said that 'the administration of railways by the direct agency of Government has, in all essentials of working, differed in no material degree from those which have characterized the administration of the company lines; indeed it has been the aim in many directions, on the part of the State and the companies, to assimilate their methods. In contrasting their results it must be borne in mind', he carefully adds, 'that the lines in the hands of the companies covered the best ground in respect of local and through traffic, while those constructed by the State directly have been designed either as feeders, as lines for military or political purposes or for the relief of possible famines.' This question of the comparative merits of State *vs.* company-management has been receiving attention from time to time. The late Mr. Robertson dealt with it in his report. He observed that he had not noticed any very marked superiority in practical management in the company-worked railways over those worked by the State, or *vice versa*, and that the majority of disadvantages to be noticed in State-management were not due to State-management *per se*, but to the system of working some railways through companies and some directly by the State. He recommended as a result of his investigations

[1] *Railway Policy in India* by Horace Bell (1894).

that the two systems should not both be in operation in India, but that Government should either work all railways as State railways or lease them all to the companies—the latter for preference.

The Mackay Committee (1908) expressed satisfaction with the arrangement under which railways in India, while remaining State property, were leased to companies for working on behalf of Government on a profit-sharing basis. The Committee even suggested that one or more of the lines worked by the State at the time should be leased to a company, the terms being in broad outline as follows :—

(1) That the earnings of the railway be capitalized and the amount thus arrived at treated as Government capital in the undertaking.

(2) That the company shall raise additional capital on the security of the line, without any guarantee from Government.

(3) That the net earnings of the line be divided between the Government and the company in proportion to the capital of each.

The subject was further debated upon in the Imperial Legislative Council in 1914 and 1915. In 1914 the discussion centred on the appointment of a representative Commission with power and instructions to include in their report their views and recommendations as to the advantages and disadvantages, in public interest, of Government management of Indian State railways and of the further development of future railways by Government itself. In 1915 a recommendation to the Governor-General in Council to consider the desirability of the future policy in regard to State railways being one of management by Government instead of by managing companies, was the subject of discussion. On both the occasions there was a certain measure of support in favour of undiluted universal State-management. Again in 1918 there was a discussion in the same Council in favour of terminating the East Indian Railway contract and of managing it by the State.

The opinion of the Government of India at the time was, that they had not, under the system of management

by companies of English domicile, sufficient weight in the administration of the railways of India, and the remedy they recommended was the transfer of control to an Indian company. Failing this, they preferred the assumption by the State of the direct management of the East Indian Railway to the continuance of the system of management in London.

An important question like this could not, of course, be settled in a hurry and moreover it could not receive the attention it deserved amid the distractions of the war. It was therefore decided (i) to extend the contract with the East Indian Railway Company for a period of five years with certain modifications in the terms thereof, and with the stipulation that, if the contract should be extended any longer, the habitat of the management should be removed to India; and (ii) to appoint a Committee to consider *inter alia*, as regards railways owned by the State, the relative advantages, financial and administrative, in the special circumstances of India, of the following methods of management:—

(1) Direct State management,

(2) Management through a company domiciled in England with a Board sitting in London,

(3) Management by a company domiciled in India and with a Board sitting in India,

(4) Management through a combination of (2) and (3); and to advise as to the policy to be adopted as and when the existing contracts with the several railway companies can be determined.

The appointment of a committee[1] was decided upon early in 1919, but it was actually constituted late in 1920

[1] The Committee consisted of:
Sir Wm. Acworth, *Chairman*.
Sir Henry Burt, K.C.I.E., C.B.E.
Sir George C. Godfrey.
Sir R. N. Mukerjee, K.C.I.E.
Hon'ble Mr. (now the Rt. Hon'ble) V. S. Srinivasa Sastri.
Sir Arthur Anderson, C.I.E., C.B.E.
Mr. E. H. Hiley, C.B.E.
Mr. (now Sir) Purshotamdas Thakurdas, C.I.E., M.B.E.
Sir Henry Ledgard.
Mr. James Tuke.

as announced by the Secretary of State in Parliament on November 1, 1920. The Committee sat in India for fifty days and examined 142 witnesses besides receiving written statements from many of them. It took evidence in London. Its report was published in September 1921.

The contracts with these railway companies generally contained, as already remarked, a clause under which they were liable to be called upon by the Secretary of State to raise additional funds for the purposes of the undertaking either in the form of share capital, debentures or debenture stock. In the earlier years of the contract the companies may have been willing to increase their share capital and thereby to provide additional funds; and though this course was recommended both in the late Mr. Robertson's report and by the Mackay Committee it did not commend itself to the Secretary of State, obviously owing to the larger share of surplus profits which would accrue to the company. In later times, particularly since the war, such a step is not likely to have commended itself to the companies, nor would it have met with the approbation of the Indian public opinion. Thus, whatever the justification for the adoption of the policy in the years succeeding 1880, when the present status of the guaranteed companies (new type) was fixed which, while retaining in the hands of Government the absolute ownership of the railways, freed Government from their detailed management and handed over their working to companies of English domicile, their usefulness for raising additional share-capital has been outlived. Though it was claimed that the London Boards still continued to serve a useful purpose in supervising and controlling expenditure, and that there were advantages in keeping touch through the London Boards with British manufacturers, with British consulting engineers and with the London Stock Exchange, as also in maintaining an agency in London for the recruitment of the European staff; and in spite of the advantages which may be held to accrue from the technical and the administrative knowledge of the Directors, from their familiarity with Indian conditions, from the value of these qualifications in the initiation and elaboration of

schemes and projects for the improvement and the development of the railways under their control, the Acworth Committee was of opinion that these advantages were more than outbalanced by the disadvantages of absentee control and the difficulty of keeping in close touch with the modern, social and trade conditions of India. For these reasons and in view of the fact that there existed a strong public feeling that the control, both financial and administrative, of Indian railways, should be transferred to India, the committee was unanimous in advising that the system of management by companies of English domicile should not be continued after the termination of their existing contracts, and that a system of management by a combination of English and Indian domiciled companies was also impracticable. The committee therefore recommended that, as each contract terminated by efflux of time, the control should be transferred to India, except in the case of the Assam-Bengal Railway Company, which was not earning even its guaranteed rate of interest and whose shares were quoted at a considerable discount and would not therefore be worth repayment at par by Government in 1931.

In regard to the next question, viz. whether the State-worked lines should be handed over to management by companies, or the company-managed lines should be resumed by the State, or the maintenance of the present dual system should be accepted as a permanent policy, the committee was, unfortunately, not able to come to a unanimous conclusion. Five members of the committee, including the chairman, held that the management in India should be by direct State agency, while the remaining five members were for continuing a system of management by companies domiciled in India. In the light of the committee's report and the trend of subsequent discussions—which need not be anticipated here—it is surprising that any other conclusion should have been expected. The last of the contracts to expire is that of the Bengal Nagpur Railway, which event will not take place till 1950, and it appears rather rash to have anticipated that any decision come to would be capable of application 30 years later, or that it would

then be accepted without dispute or discussion by the public or by the Government.

In this short sketch, it will not be possible to deal with the arguments except briefly :—

Sir William Acworth, the Chairman, Mr. (now the Right Hon'ble) V. S. Srinivasa Sastri, Mr. Hiley, Mr. (now Sir) Purshotamdas Thakurdas and Mr. Tuke, stated that though most of them approached the question with a strong pre-possession in favour of private enterprise as a general proposition, they had no hesitation in recommending that the State should manage directly the railways which it already owns. Their arguments in favour of this conclusion may be thus described :—

(1) Though a company investing its own money, managing its own property and judging its officials by their success in producing results in the shape of dividends, usually conducts its business with more enterprise, economy and flexibility than are found by experience to be attained in business directly managed by the State, the English companies (new type) managing State railways ceased to be companies in this sense many years ago. The property entrusted to their management was not their own and their financial stake in it was relatively very small. From their experience and investigations in India, they were led to the conclusion that such a system had never worked satisfactorily and cannot be made to do so. The management is only nominally entrusted to the companies, for the Government, feeling itself to be the real owner and ultimately responsible, not only financially but also morally, for the policy pursued, has left really no initiative in the hands of the companies. The Government Director sitting on the Home Board has the power of veto over any decision come to by his colleagues. The railway receipts are required to be paid in their entirety into the Government treasuries and money required for revenue expenditure can be drawn only subject to restrictions prescribed by Government and not necessarily to the extent desired by the company. Creation of appointments beyond certain limits, and payment of any allowances beyond certain fixed scales, require the sanction of Government, and the

discretion of the companies is restricted in the matter of leave, etc., to be given to the staff. Thus, while the company cannot and does not manage the undertaking, it cannot break new ground in any direction except with the sanction of Government. The Government does not feel an obligation to undertake any initiative itself; and on the other hand, if the company is supine, the Government is powerless to intervene. The Government has no control over the appointment or the removal of the company's staff; however urgent be the necessity for the adoption of new operating methods, for improvements in plant or equipment, for the modification of freight rates to encourage new traffic, the Government can merely propose and suggest—the Government having power to give orders only where public safety is involved. A system under which a progressive company is hampered by meticulous Government control over every detail of expenditure, and under which, on the other hand, the utmost wisdom on the part of Government cannot prevent the injury caused by the unwise and unprogressive policy of the company's board, both to the revenues of the State and to the economic development of the country, has nothing to recommend it. The companies do not possess the essential attributes belonging to ordinary companies and cannot claim to possess the advantages of energy, enterprise and so on usually associated with the latter.

(2) It is not proposed that private capitalists should buy out and out from Government either the East Indian Railway or the Great Indian Peninsula Railway, as it would involve raising capital amounting to crores of rupees; nor in the circumstances can it be imagined that any such proposal, if made, would have any chance of acceptance by Government or be able to secure from the public the requisite financial support.

(3) The proposal put forward by their colleagues is that the management should be transferred from English to Indian companies which would never have more than a minority interest in the undertaking; and that the Government, remaining the predominant partner, shall appoint one half of the Directors, nominate the Chairman

and so retain their control. The mere change of domicile of the Boards of Directors cannot make the scheme workable. The division of responsibility between the Government and the Board of Directors which has hitherto existed and is responsible in large measure for the failure of the Indian railway system to meet its obligation to the public, will still continue, and the executive officers, with a divided allegiance to a Board of Directors which appoints and pays them, and to the Government which stands behind the Directors, cannot do the best work of which they are capable. Moreover, if prominent business men accustomed to ordinary commercial methods were to join the Boards and find their powers limited by Government control and Government regulations in any measure comparable to what exists at present, they would very soon resign their posts.

If an Indian company be constituted to manage the East Indian Railway, the bulk of its capital being issued to Government, the amount of privately subscribed capital, whether at the inception of the company or later on, will be but a small share of the total at stake ; and there is no reason why the Government should delegate any substantial authority to such a body, nor is such a course recognized in the ordinary commercial world, though without the delegation of substantial authority it is idle to talk of the flexibility, enterprise and so forth to be obtained by company-management. Further, even this small share of capital is not proposed to be risked relying solely on the prospects of the successful management of the property. A guarantee of interest at 1 per cent below the rate at which Government can borrow directly is asked for, in addition to a share in the surplus profits. The private shareholder thus sacrifices a certainty of 1 per cent probably to receive on an average at least 3 per cent over the guaranteed rate. Such an arrangement not only does not secure money in sufficient quantity to relieve the Government of the necessity of borrowing freely in its own name, but involves the further objection that the public would pay dearly for the money.

(4) Moreover the mere transfer of management from companies of English domicile to companies of Indian domicile, will not satisfy Indian public opinion, nor does it meet with the general approval of the Europeans in India. Indian public opinion is practically unanimous that the owner shall manage directly. It is with money secured on Indian taxation that the Indian railways have been almost entirely built; it is the Indian public that uses railways and pays the railway rates and fares; it is the Indian Legislative Assembly which votes the railway budget and it is therefore of the utmost importance that Indian public opinion should not be prejudiced against the railway management. Company-management cannot be so good as to escape fierce, often unfair, criticism from Indian opinion; and, therefore, even if State-management were assumed to be no better, its failures will be judged more leniently by the Indian public.

(5) In the case of the East Indian Railway another reason in favour of State-management is that if this railway and the Oudh and Rohilkhand Railway were combined and worked as one system, competition will be removed, through traffic could be diverted from one route to the other according to circumstances, and the two lines will be more adequate to deal with the traffic offering.

(6) Though the Government has not provided sufficient money in the past, no difficulty is anticipated in their being able to obtain the necessary funds if they offer to pay the market price for it.

(7) The claim that improvements in the administration of State railways which have been effected are due to the emulation inspired by company-management is not substantiated because, speaking of present conditions, there are no reasons to think that company-management is more efficient or more enterprising than State-management. There is as much zeal for improvement and quite as much readiness to adopt new methods on State railways as on company lines, and this is also the opinion of the Government of India as expressed from time to time.

(8) The experience in other countries is not of great assistance in dealing with the Indian problem, as company-management, in the ordinary meaning of the words, does not exist in India and in fact the whole reference to foreign countries is irrelevant, as the problem has to be solved with reference to the conditions existing in India.

(9) Statistics produced to prove the inferiority of State-management in India are not convincing, as like has not been compared with like nor all State-managed lines compared with all company-worked lines.

(10) The Indian public entertain the view that company-management will not encourage the appointment and promotion of Indians in railway services.

(11) It cannot be accepted that the proposed new companies of Indian domicile will be able to raise money in India so freely that there would be less need than in the past to have recourse to the English market, because the money so raised will be so small a proportion of the amount needed that it will not appreciably affect the ratio in which funds will have to be raised in the two countries. Moreover the money raised by Government loans will, as already remarked, cost the Indian taxpayer a good deal less. Further, owing to the large number and variety of Indian railway securities offered at the London market, they are not popular in England, and if the East Indian Railway and the Great Indian Peninsula Railway undertakings were handed over to Indian domiciled companies for management, they believe that the effect will be to close the London market against them, at any rate not to increase the popularity of the Indian sterling railway securities, and perhaps to render Indian Government loans themselves less attractive to the English investor.

(12) Management by an Indian domiciled company is an experiment, whereas State-management is not, and further if the experiment failed and it was decided to disestablish the company on six or twelve months' notice, there would be a premium to pay according to the scheme suggested by the dissentient members of the committee.

Sir William Acworth and the other four members concluded by stating that they based their recommendations mainly on the broad ground that, as a matter of practical politics, companies substantially independent cannot be formed in India; and that without such independence the advantages of private enterprise are lost and the nature of the companies of Indian domicile which the dissentient members of the committee proposed, only confirmed them in the belief that they (the former) had correctly understood the situation.

In thus recommmending in favour of State-management they were careful to add that what they mean is not State-management as it has hitherto existed. They stated that they would hesitate to entrust to a Government Department as at present constituted and administered, any new responsibilities in respect either of State or company-managed railways. They meant State-management as modified at least substantially and in main outline on the basis of the recommendations of the committee in regard to financial and administrative reforms.

In regard to methods of financing railways in the future, they were against decentralization and placing the railways under the control of the several provinces, as the Indian railways were not too large to be efficiently managed by a central authority; they held that State owned railways must be financed solely by the Central Government. The necessary money should be raised by direct Government loans in India or England as circumstances may dictate, and perhaps rupee loans in India would be more attractive if earmarked as for railway purposes. From the financial, economic and political point of view, in short from every point of view, money required for Indian railways should as far as possible be raised in India and this should be feasible with the experience of Government in raising large sums in India during the war. The agency for the issue of Government loans required to be organized much more thoroughly and on a much wider basis in order to tap the surplus resources of the mass of the people. A good deal could also be done by personal invitation to

Indian Princes and other great landowners .and capitalists.

An equal number of members of the committee, viz. Sir H. P. Burt, Sir R. N. Mukerjee, Sir A. R. Anderson, Sir G. C. Godfrey and Sir H. Ledgard held the opposite view. They held that State-management could not altogether be eliminated, as the North-Western Railway should, for strategical considerations, continue to be managed by the State; and that as, for instance, the Bengal Nagpur Railway contract is not terminable for more than a quarter of a century, i.e. till 1950, prudence alone forbade the pronouncement of a permanent policy for meeting the circumstances which may exist at that advanced date. For many years to come the dual system of State and company operation must therefore remain in force. They were of opinion that in the interests of India it was as necessary as it was desirable that its railways should be worked as far as possible by company rather than by State agency, their reasons being summarised as follows :—

(1) The State has been fitful and parsimonious in the past in its contributions to railways and will not be able for at least the next decade, and probably for a longer period, to finance the railway systems to the extent which the development of the country demanded, particularly in view of the short-term war debt amounting to about £100 millions.

(2) Under the Reforms of 1919, the new legislature has a great measure of control over the budget and as India advanced in the direction of becoming a democratically governed country, the dangers, though not immediately imminent, which lurk in the handling of a commercial business by State-agency and which experience elsewhere condemns, will have to be faced.

(3) The railways being commercial undertakings, should be managed on a commercial basis, i.e. by a company with a Board of Directors.

(4) State-management involves (*a*) constant transfers of senior officials, resulting in lack of continuity of policy; (*b*) disregard of public opinion ; and (*c*) lack of initiative and flexibility.

(5) Improvements in the administration of State-railways are mainly due to the emulation inspired by company-management.

(6) Nationalization in the working of railways is not required, either on the ground that the railways require to be otherwise subsidized, or that their outlook was so gloomy that it would be hopeless to attempt to raise more railway capital, or that for military reasons the railway operations should remain in the hands of the State.

(7) The alleged faults of the company-management as it exists in India are not inherent but are capable of elimination. If companies failed to provide necessary funds for capital expenditure, it was because Government refused them permission to do so. Freed from this difficulty, company-management ensures the larger share of profits made from railways going into the coffers of the State while avoiding the extravagance and other disadvantages of State-management through a vast and growing bureaucracy. At the same time the existing companies have stood the test of time with a great measure of success.

(8) The companies will tap sources for the supply of a part at least of the additional capital required without injuring the credit of the State.

(9) If the entire staff belonged to a state Service, the dangers of strikes would be greater.

(10) In actual practice it is found that in State service, seniority is allowed to assume undue importance in the selection of officials for the higher posts, and moreover State service is bound by rigid rules and scales of pay, and cannot allow the latitude exercised by a commercial concern in singling out and rewarding merit.

(11) State-management in recent times in other countries, e.g. Switzerland, Austria, Italy, South Africa and America has resulted in increased cost of working and a diminished return on the capital invested.

(12) The companies *do* manage railways. They employ an efficient and experienced staff and the initiation of improvements has originated with company-managed lines. Comparisons in economy and efficiency

based on a few figures extracted from statistical returns maintained by railways prove advantageous to company-management.

Believing further that there will be no difficulty in evolving a scheme of company-management in India which will meet the legitimate aspirations and claims of all sections of the community, satisfy both political and industrial interests, relieve the financial situation and at the same time give an opportunity for the harmonious co-operation of Indians and Europeans in the working of the great and vital industries of the country, and thereby ensure the rapid development of the resources of India for the benefit of all, they proceeded to suggest two schemes which were similar in many details to existing companies of English domicile and whose distinguishing features may be summarised as follows :—

(1) Interest to be guaranteed at 1 per cent less than the prevailing rate from time to time for Government loans together with a share of surplus profits.

(2) The Government to have the right to acquire the shares subscribed by the public at a stated period after 6 or 12 months' notice at such a reasonable premium as may be agreed to at the inception of the company.

(3) The Boards to consist of 10 Directors, five of whom to be nominated by Government. Half the number of Directors should preferably be Indians. The Government to have the right of nominating the Chairman, who will have a casting vote.

(4) The management should rest with the Board of Directors except so far as legislation intervenes and except in such matters as control of rates, allocation of expenditure between Capital and Revenue, and services to be rendered to the State. Should the nominated and elected Directors disagree, thus involving the exercise of the Chairman's casting vote, the matter should be referred to Government if the minority so desire.

The following were claimed to be among the advantages of the proposed scheme :—

(1) Indian public opinion will have full recognition without the bureaucratising of a commercial organization.

(2) The appointment of Indians to high administrative posts and the promotion of specially meritorious Indians from subordinate to higher grades will be better secured than on State-managed railways.

(3) By Government guarantee of a fair rate of interest, Indian trust money, more particularly large sums of money from Insurance companies, will be attracted for investment and thus India's indebtedness to the non-resident investor reduced.

The members who held this view anticipated no difficulty in finding suitable Directors in India. They suggested that if the scheme proved successful with the East Indian Railway, a similar scheme may be adopted for the Great Indian Peninsula Railway, and the principle of working by companies of Indian domicile extended when the remaining contracts came to be determined.

In regard to the raising of further capital, these members suggested that the services of the existing companies should be utilized for raising debentures, if the Government find such a course convenient and economical. Government should also have no hesitation in enlisting the help of private enterprise for financing with rupee capital some of the larger schemes for new lines which have already been so long delayed for want of funds. Even so Government will have to raise very large sums by direct loans, and for this purpose the Indian money-market should be exploited to the fullest extent; these loans may perhaps secure additional attractiveness by being advertised as required for railway purposes. These members did not wish that all development depending on new lines of railways should be at a standstill until the existing lines were brought up to date, because the period could not be short and many new lines were of urgent importance. They therefore held that no channel through which money could be obtained on reasonable terms should be neglected.

Having thus failed to secure an unmistakable lead from the deliberations of the Acworth Committee as to the action to be taken on the expiry of the contracts with the East Indian Railway and the Great Indian

Peninsula Railway companies in December 1924 and June 1925 respectively, the Government consulted the Central Advisory Council, and in pursuance of a suggestion made in the course of a preliminary discussion, two schemes were drawn up with particular reference to the East Indian Railway and were in the first instance circulated to the Local Governments and important Chambers of Commerce. As was to be expected, the same divergence of opinion was met, some Local Governments and some Chambers of Commerce favouring State-management and some others management by the agency of companies of Indian domicile.

The question was taken up again with the Central Advisory Council. Among the fresh arguments advanced in favour of State-management were (i) the possibility of ensuring that Indian industries are utilized for the purposes of supplying railway requisites; (ii) the control over rates in public interest so as to ensure that railway rates are not manipulated as against Indian industries; and that in favour of company-management was that State-management, if universally introduced, would lead to centralization of control which would paralyse all progress. After considerable discussion, the non-official members of the Central Advisory Council by a majority decided in favour of State-management.

The question formed thereafter the subject of a resolution in the Legislative Assembly and was hotly discussed. It was felt that it was not advisable to decide in general terms on a question which will arise for practical consideration in certain cases as late as 1950, and therefore it was narrowed down as dealing with the future management of the East Indian and the Great Indian Peninsula Railways only. The Government expressed their willingness to accept a resolution that, on the expiry of their leases, these two railways should be taken over for management by the State, subject to the proviso that efforts should be continued to concert measures with the object of handing over one or the other of the two railways, after such grouping as may be necessary, to an indigenous company, to give India the benefits of real company-management. The Government spokesman

explained that the efforts of Government to find an alternative for State-management had till then failed, the existing condition of the finances of India and of the money market generally being hardly favourable to the flotation of a company. Moreover the taking over of the two railways under State-management would give an opportunity for grouping the railways into larger systems, thereby securing economies in the cost of administration and supervision. Viewing the prospect of bringing all Indian railways under direct State-management with grave concern, the Government considered that a substantial portion thereof should be maintained under company-management, and desired, therefore, that an avenue should be kept open, when the propitious moment arrived, to entrust the working of one of the re-grouped railways, more likely the East Indian Railway, to a company which will secure the benefits of real company-management.

The House felt disinclined to stand committed to a policy which was thus only roughly outlined, but preferred that a concrete proposal should first be formulated and placed before it for its concurrence. It was feared that by accepting the proviso proposed by the Government spokesman, the Government might arrange with some company to take over the management of one of these railways without the Legislature having an opportunity of knowing the terms of such management and giving its approval thereto. In the end the Legislative Assembly adopted by a majority the resolution that on the expiry of their leases, the Government take over both the East Indian and the Great Indian Peninsula Railways for management by the State.

It will thus be seen that neither the Acworth Committee, Local Governments, the several Chambers of Commerce nor the Legislative Assembly were able to give anything approaching a unanimous opinion on the question. The question may be said to have been settled so far as the immediate fortunes of the East Indian and the Great Indian Peninsula Railways are concerned. Without attempting therefore to add to the arguments already given or to endeavour to arrive at a

fresh judgment, one may express the belief that it will be possible to start an indigenous company as an experiment, and to watch the results of one of the promising lines being worked by it, for it would appear prudent to have an alternative to State-management.

CHAPTER VIII

CENTRAL CONTROL

In the first years of railway construction by the agency of companies, the control was vested in the Public Works Department of the Government of India. When in 1869 the Secretary of State agreed with the Government of India as to the advisability of railway construction by State agency, and a vigorous programme of construction was commenced, it was found necessary to constitute a new railway branch of the Public Works Department to deal with railway matters and this was done in 1870. Further, to strengthen this control, a Consulting Engineer for State Railways was appointed in 1871 and a Director for State Railways in 1874, which appointment was in 1879 converted into that of the Director-General of Railways, the Director-General being ex-officio Deputy Secretary to the Government of India in the Railway Branch of the Public Works Department. In 1897 the appointment of the Director-General was merged into that of a Secretary. As remarked elsewhere, Local Governments had powers of control over the guaranteed lines within their jurisdiction which was exercised through their Consulting Engineers. This system of control continued till 1905.

As a result of the late Mr. Robertson's report the appointment of a Railway Board which was to assume the control and management of the railway system in India was decided upon, thus getting rid of the then existing system of secretariat administration which was held to be cumbersome in its methods and deficient in powers to dispose of business with sufficient promptitude and decision. The Board consisted of three persons: a Chairman and two Members. In the Chairman was vested the general control of all questions committed to the Board and the power to act on his own responsibility

subject to the confirmation of the Board. Legislation was also undertaken to empower the Governor-General in Council to invest the Board either absolutely, or subject to conditions, with certain powers or functions under the Indian Railways Act of 1890, and in Resolutions No. 801 and No. 803-865, dated March 24, 1905, the powers vested in the Railway Board, and those vested in the Governor-General in Council which had not been delegated to the Board, were defined.

Mr. Robertson further recommended that the system of control over the proceedings of railway companies should be abolished, and that the Consulting Engineers and the Government Examiners of Accounts through whom this control was exercised should be withdrawn. After a consideration of these recommendations, the Government of India decided to give wide powers of sanction to Companies' Boards with the recommendation that the Companies' Agents in India should be entrusted with a considerable portion of such powers and that the appointments of Consulting Engineers should be abolished. The appointments of Government Inspectors were however created instead, to carry out the duties of Government Inspectors under the Railways Act, and to report any defects which might be noticed as well as to ensure that the railway company shall keep the line in a proper state of efficiency and repair during its tenure, and to hold enquiries and make reports on matters specially referred to them by the Railway Board. The Government of India also decided that it was necessary to maintain some measure of control in order to protect the interests of Government adequately in other directions, and retained in their own hands such safeguards as limitation of expenditure by budget provision and the watch over proper application of funds to capital purposes for improvement, and to revenue purposes for upkeep and maintenance, and the correctness of accounts and of the division of profits, their representative for this being the Government Examiner of Accounts.

The Acworth Committee expressed itself as not satisfied with the working of the Railway Board. The committee said that in consequence of regulations, the

Railway Board spent a large part of their time in doing the work of their subordinates, and on the other hand in obtaining permission from their superiors to do things which they were fully competent and ought to be permitted to do, thus having no time to visit different parts of India and to get into touch with local opinion. It considered that the proper function of the Board was not to carry out routine duties but to shape policy, to watch, to think and to plan, and recommended that the Board should be reorganized and called the Indian Railway Commission with a Chief Commissioner at the head assisted by a Financial Commissioner and three Commissioners each in charge of a territorial division of the country. In pursuance of this recommendation a Chief Commissioner has been appointed who is solely responsible for arriving at decisions on technical questions and in advising the Government of India in matters of railway policy. The importance of the appointment of a Financial Commissioner, though not dwelt upon at length in the report, was obvious from the recommendation that the railway finance should be separated from the general finances of the country, and that he should be second in command at headquarters. The Inchcape Committee also considered that, in view of the enormous stake which the Government of India have in the railways, it was essential that there should be an officer of the Government of India to protect the interests of the State, to consider schemes for development and to sanction capital expenditure. It recommended that the officer should be associated with the Chief Commissioner in order to ensure that financial considerations are given their due weight and that he could deal also with other technical questions of a financial nature, e.g. provisions for renewals and incidence of expenditure as between capital and revenue. This recommendation has been accepted by the Government of India and a Financial Commissioner has been appointed.

The Acworth Committee further recommended that the Railways should be represented in the Viceroy's Council by a Member fully in touch with their work. This has not been carried out, but in the distribution of the duties

of the Members of the Executive Council which came into force early in 1923, the Member in Charge of Railways has been relieved of his control over certain other departments of the Government of India, and thus given an opportunity of getting into closer touch with railways.

The objective of the Acworth Committee was that the reorganized Railway Commission should be responsible for its own administration, prepare its own programme of work and expenditure and within the limits of its budget, as approved by the Government of India and the Secretary of State and accepted by the Indian Legislature, carry it into effect, that, in a word, though remaining an integral part of the Government machine and subject to control on broad questions of policy and major questions of finance on which the policy must depend, it shall be an independent administration. The Commission should also have some control over the appointment and retention of the principal officers, and more power to initiate and enforce reforms than at present in the case of company-worked railways. And on the other hand the control over the Agents of Railways in matters of detail should be relaxed as far as possible. In the words of the Inchcape Committee, the Agent should be responsible for the administration and financial results of his railway and his management should be judged by results; and if it is unsuccessful, apart from fortuitous circumstances, he should be relieved of his duties.

The Railway Board as reorganized consists of a Chief Commissioner, a Financial Commissioner and two members assisted by Directors in charge of each of the main branches of work. The devolution of greater powers to them as well as to Railway Administrations is still under consideration.

Witnesses representing Indian opinion had complained before the Acworth Committee that Indians had no voice in the management of their own railways. The Committee held that Indian opinion can exercise control in the strict sense, viz. the power to give orders to the railway executive, only through the Legislative Assembly, but that it was possible for properly constituted bodies

representing the public to exercise great influence and, instancing the experience of Prussian railways in this matter, suggested the formation of a Central Advisory Council with the Hon'ble Member in Charge of Railways as Chairman, and similar local Advisory Councils, one for each railway, meeting at the headquarters of that railway, the Agent taking the chair. The establishment of a second council for the North-Western and the East Indian Railways at Karachi and Cawnpore respectively was also suggested. The Committee's detailed suggestions in regard to the constitution of these councils need not detain us.

The Government of India were of opinion that in the circumstances of India and having regard specially to the size of the country, the necessary representation of the different interests on the Central Advisory Council could be most conveniently secured by selection from among the Members of the Council of State and the Legislative Assembly. The Railway Finance Committee, containing representatives of the most important provinces of India as well as representatives of certain important commercial interests, appointed by the Governor-General in Council to consider the recommendations of the Acworth Committee in regard to railway finance, has been referred to in a previous chapter. The Governor-General in Council decided that the best course was to constitute this committee with certain necessary changes as the Central Advisory Council for Railways. The Council thus consists of sixteen members[1] inclusive of the Chairman who is the Hon'ble Member in Charge of Railways and has power to co-opt, if necessary, representatives of the Departments of the Government of India when matters particularly affecting the interests of those Departments are under consideration. The function of the Council will, as its name implies, be purely advisory, and it will discuss such important questions of policy as may be placed before it by the Member in Charge of Railways.

[1] For further details see Government of India Resolution No. 1194—F, dated March 10, 1922.

The issue of orders regarding the formation of local councils took, however, some time, owing to the fact that the opinions of the Agents of State-worked railways and of the Home Boards of company-worked railways, had to be obtained. On receipt of these opinions, and after consultation with the Central Advisory Council, instructions were issued for the constitution of Local Advisory Committees on railways in accordance with certain general principles laid down by the Government of India which are briefly as follows :—

Constitution.—The number of members to be decided according to circumstances subject to a maximum of twelve members including the Agent of the railway as ex-officio Chairman. The remaining members to consist of :

Two Local Government members nominated by the Local Government in whose jurisdiction the headquarters of the railway is situated ;

Three representatives of the Legislative Council of the aforesaid Local Government, these members being selected in order to represent rural interests and the travelling public ;

One member from the local municipality or municipal corporation at the railway headquarters ; and

Five members representing industries, commerce and trade.

The heads of Railway Departments may be called in to give expert technical advice on matters under discussion.

Duties.—The functions of the Committees are purely advisory. The following may be given as instances of subjects which have been considered as suitable for discussion :—

(1) Alterations in time-tables and passenger services.

(2) Alterations of rates and fares and changes in goods classification.

(3) Proposals in regard to new projects and extensions.

(4) Suggestions in regard to new rolling-stock.

(5) Any matters affecting the general public interest or convenience.

Questions of personnel, discipline and appointments will not be brought before the Committee.

With slight modifications to suit local circumstances, Committees have been constituted at the headquarters of most of the principal railway administrations. A second Committee has been constituted at Muzaffarpur for the Bengal and North-Western Railway and at Karachi for the North-Western Railway. The constitution of additional committees on large systems like the East Indian and the Great Indian Peninsula Railways has been held over for the present.

Local committees had already been in existence on the East Indian and the Eastern Bengal Railways for several years, and on receipt of the instructions of the Government of India these were duly re-constituted.

Though in the nature of experiments, the Central Advisory Council and the Local Advisory Committees open up large fields for public service, and their activities will be watched with interest by the general public.

The powers of control which could be exercised by the Government of India over company-worked railways have already been touched upon elsewhere, and these naturally did not include the right to interfere in minor details of railway administration. There was consequently a tendency for each railway to proceed on its own lines and to work out its own salvation. Even in matters where the Government of India had the power to lay down the rule, they considered it expedient to call for the opinions and advice of those who had control over the immediate working of the lines and to enlist their concurrence and co-operation in order to obtain a uniformity of system in all essential points on all railways. This was the origin of railway conferences the first of which was held in 1880. At this conference, presided over by the Director-General of Railways, a code of general rules was agreed to for the working of all lines, agreements for the interchange of rolling-stock were arrived at, proposals were discussed for the adoption of a uniform classification of goods, the standard maund of 82·29 lbs. as the basis of weight on all railways was adopted and rules were agreed to for the preparation of

half-yearly statistics. The advantages of these conferences of railway officials both of State-worked and company-worked railways and of the free interchange of opinions on important questions are too obvious to require any elaboration.

These conferences dealt only with traffic questions. In 1889, with a view to assimilating the practice on railways in the construction of rolling-stock, arrangements were made for the Annual Meeting of a Committee of Locomotive and Carriage Superintendents. The functions of the committee were to deal with all matters relating to the mechanical improvement of rolling-stock, their design, construction, running and repairs, to determine standards to be adopted, to arrange for experiments and generally to consider and report on all questions connected with rolling-stock, work shops, station machinery, etc.

With the expansion of railways in course of time, the usefulness of these traffic conferences and of the meetings of the Committee of Locomotive and Carriage Superintendents increased, and they are now merged in the Indian Railway Conference Association, a brief description of which may properly find a place here.

The Association consists of all Railway Administrations in India working a railway open for passenger traffic, membership being optional, has a President elected annually from the representatives of the administrations comprising it, and a paid Secretary and the necessary office establishment. The Association is constituted to frame regulations for the management of traffic interchanged between railways represented in the Association, including the fixing of charges for transhipment, use and misuse of vehicles, hire, demurrage, etc.; it may also advise on other subjects relating to Indian railways affecting the mutual relations between the railways themselves, and also between the railways and the Government which may be referred to them, and act as a Board of Conciliation for the settlement of differences that may arise between railways represented in the Association and of other matters. The voting power of the members is based half on the freight ton-mileage of coaching and

goods traffic, and half on the mileage open and under construction. Any member may after 12 months' notice withdraw from the Association or withdraw its assent to any regulation. The expenses of the Association are borne by the members proportionately to their respective voting powers. A general meeting of the Association is held annually.

The Locomotive and Carriage Superintendents Committee already referred to, is affiliated with this Association, its functions being (i) to discuss, consider and report on mechanical, technical and other questions connected with the working of their departments; and (ii) to arrange and carry out such trials and experiments as may be necessary to deal with any question under the above heads. The other committees of the Association are the Claims Arbitration Committee, the Audit and Accounts Committee and the Traffic Committee. The Claims Arbitration Committee deals at the instance of the party or parties concerned with claims which one or more railways may have against another railway or railways members of the Association, arising out of claims for compensation by the public, and for freight, legal or other expenses connected therewith, and determines liability in cases of disputes between railways in regard to freight, haulage, hire or penalty charges. The Traffic Committee (i) considers and recommends alterations or additions to the general classification of goods, (ii) examines and makes recommendations on proposals affecting schedule rates, conditions of station to station rates and other details; and (iii) considers and recommends any alterations or additions to the general rules for the through booking of goods or coaching traffic. The functions of the Audit and Accounts Committee are (i) to consider and submit recommendations on questions of audit and accounts arising from resolutions passed, or regulations framed, by the Conference; (ii) to consider and report on proposals to modify existing rules; and (iii) to report on suggestions for the assimilation and simplification of forms and audit procedure generally between railways.

In addition to the uniformity in the working of railways

thus attempted to be secured by means of this Association, the Government of India have themselves, by means of special committees, taken steps to secure uniformity in other directions. Thus for instance a special Bridge Committee consisting of the engineers of all railways and presided over by the Chief Engineer with the Railway Board has been dealing with the question of railway bridges. The principal matter which has engaged its attention so far is the evolution of a satisfactory formula for 'Impact'. Valuable work is also being done by the Technical Branch of the Railway Board's Office in initiating research in respect of technical engineering matters affecting railways and publishing the results in the form of technical papers for the general benefit.

CHAPTER IX

RATES AND FARES

THOUGH the subject of rates and fares charged on railways is of very great importance to the travelling public and therefore to the country at large, it is impossible to attempt anything but a brief sketch in this volume.

Railways have enjoyed a monopoly to some extent from the commencement and in spite, within recent times, of competitive routes by different railway administrations between certain stations, and of motor transport for short-distance traffic radiating from important towns and cities, they have continued to retain their monopolistic nature. It is interesting therefore to notice that even at the outset the Government were alive to the necessity for restrictions on the rates and fares to be charged, though it was some time before any adequate control was secured. In the first contract given out, viz. that with the East Indian Railway, the Government retained the power to require a reduction in rates and fares when the line paid over 10 per cent. Similar terms were retained in the early contracts, and it is curious to observe that a contract executed so late as 1891, viz. the contract relating to the construction and working of the Bengal Dooars Railway, contains a clause to the effect that when the gross receipts in any one year reached 12 per cent on the capital outlay, the maxima rates and fares embodied in the contract shall be reduced by 25 per cent or by such smaller percentage as Government may from time to time prescribe.

At the time when railways were first projected, the promoters anticipated a fair share of goods traffic but next to nothing of passenger traffic. It is unnecessary to dilate on the arguments on which this estimate was based. Suffice it to say that it was not long before it was realized how erroneous these anticipations were. As

early as in 1860, the importance of coaching receipts was noticed and also the preponderating number of third class passengers, this number being more than sixteen times the total number of passengers by the higher classes.

The Government clearly recognized their duty to protect the interests of the public; and while admitting that their control should not be so exercised as to compel the railway companies to carry passengers without profit, they held that the accommodation of the public should be considered so far as it was not manifestly incompatible with the interests of the company. Whereas a company may consider it to its interest to carry the minimum number of passengers with the maximum of profit, the view of the Government was that the maximum of passengers should be carried with the maximum of profit. In 1867 the Government of India decided upon laying down maximum rates, and though strongly of opinion that such maxima should be laid down by themselves, they were, under instructions from the Secretary of State, enabled to issue orders in 1868 stating that maximum rates should be fixed by Local Governments, such rates leaving a reasonable margin for the exercise of discretion by a company in varying working rates as circumstances may require, and that the actual rates within such maxima should be regulated by the railway companies. The following matters were however retained in the hands of the Government of India :—

(1) Fare for the lowest class of passengers.
(2) Rate for food grains.
(3) Rate for coal.

When the first State lines were opened, the rates adopted were as follows :—

Passengers		As.	Goods per Maund		As.
I Class	...	8	Special	...	2
II "	...	4	I Class	...	4
III "	...	2	II "	...	6
IV "	...	1	III "	...	8

for each stage, i.e. for each pair of stations.

The Government steadily kept in view the question of reducing fares and in 1880 issued a resolution on the effect of low fares, advocating the adoption of the maximum of 2½ pies per mile for the lowest class. In 1881 they availed themselves of a clause in the new (1879) contract for the working of the East Indian Railway in insisting on the maximum being actually reduced to 2½ pies per mile. In a communication which was addressed in the same year to the Madras Government, the Government of India advocated the maintenance of a local train service on the South Indian Railway for the benefit of the poorer classes, at a rate not exceeding 2 pies per mile, pointing out that as there was no immediate prospect of the company earning any surplus profits, any loss from the reduction of fares would fall on the Government, while any development of trade and passenger traffic which it might bring about would be to the advantage of the company when surplus profits began to accrue.

The necessity for a minimum rate was for a long time not recognized till it came into prominence in connection with goods traffic. Leaving this point over for the present, in 1887 the Government issued a resolution on the subject of rates and fares wherein a schedule of maxima and minima was prescribed and from which the following extracts may be quoted :—

(1) The schedule of maxima and minima rates and fares shall be adopted on all railways worked directly by the State and by all other administrations, whether their lines be already opened or not, so far as this schedule is not inconsistent with any contracts or agreements previously entered into, and it shall not be departed from without due cause being shown.

(2) The maxima and minima fares fixed for each railway shall be published in the coaching and goods tariffs.

(3) Unless sufficient reasons be brought forward against the adoption of this course, the general goods classification then in force on the East Indian Railway shall be accepted for all railways worked directly by the State, and by all other railway administrations with the

same proviso as to interference with existing contracts as under (1) above.

(4) There shall be no undue preference either between two railway companies or between a railway company and a particular person or class of individuals by making preferential bargains or by granting to one particular company or person more favourable conditions for the carriage of goods than to the rest of the public at large.

The principle of fixing maxima was already in force on English railways and was adopted in India clearly in the interest of the public. The *raison d'être* of fixing minima was different. The companies being entitled to a guaranteed rate of interest, with the growth of competition they were tempted to attract traffic by quoting unremunerative rates which would result in a loss to Government, i.e., in other words be at the expense of the general tax-payer.

The question of undue preference was later dealt with in the Railways Act (Act IX of 1890), an extract from which is given below :—

Section 42 (2). A railway administration shall not make or give any undue or unreasonable preference or advantage to or in favour of any particular person or railway administration or any particular description of traffic in any respect whatsoever or subject any particular person or railway administration or any particular description of traffic to any undue or unreasonable prejudice or disadvantage in any respect whatsoever.

Section 43 (1). Whenever it is shown that a railway administration charges one trader or class of traders or the traders in any local area, lower rates for the same or similar animals or goods, or lower rates for the same or similar services, than it charges to other traders or class of traders or to the traders in another local area the burden of proving that such lower charge does not amount to an undue preference shall lie on the railway administration.

(2). In deciding whether a lower charge does or does not amount to an undue preference, the Railway Commission may, so as far as they think reasonable,

in addition to any other considerations affecting the case, take into consideration whether such lower charge is necessary for the purposes of securing, in the interest of the public, the traffic in respect of which it is made.

In 1891, the minimum for 3rd class passengers was reduced to $1\frac{1}{2}$ pies per mile.

Before dealing further with the subsequent modifications in these maxima and minima, let us consider the rates for goods.

From the commencement, goods have been divided into five classes and for a time there appears to have been some confusion on the subject of fixing rates. In 1866 the Government considered that the first point to be ascertained, before fixing charges, was the cost of conveyance and then the charge which, in addition to what was required to cover the cost, would produce the greatest aggregate return; for they said that it was not the high profit upon the unit but the small profits upon the large number of units or quantity which should be sought for. As already noticed, powers were in 1868 given to Local Governments to fix maxima rates for railways working under their control. The first serious trouble in regard to competitive routes arose in 1881 in connection with the carriage of produce from Upper India. The Calcutta traders complained that the rates to Bombay were injuring the trade of Calcutta and prayed that relief should be afforded to them by either enforcing higher rates on the Bombay route or lowering those on the Calcutta route. The Secretary of State, to whom the matter was referred, decided that it was impracticable to attempt to proportion the rates on competing lines on the basis of the supposed aggregates of the cost of transport, that it would not be desirable, even if it were practicable, and that managers should be left to fix rates as they may deem most advantageous for their respective lines subject to the interposition of Government in extreme cases. He was disposed to think that the interests both of the railways and of trade generally would be better served by accepting the legitimate consequences of competition, regulated as it necessarily would

be by the desire to apply skill and economy to the work of management.

Instructions based on this decision were communicated to railway administrations in 1883. Rival routes were left alone to get the largest traffic they could, the anticipated result being the greatest aggregate of traffic upon all combined consistently with a profit, the maximum of accommodation to the traders and the public, of gain to both producers and consumers, and the highest possible development of the resources of the country. It was anticipated that interference by Government would be necessary in any case in which, either through ignorance, recklessness or idle rivalry, or owing to the indifference based on the security of a Government guarantee, rates were unreasonably lowered. This necessity for precaution against too low rates took definite shape in the form of minima rates adopted in 1887.

The maxima and minima rates and fares thus laid down, with the modifications ordered in 1891 which bore special reference to the minimum rates for goods, continued in force for over quarter of a century without any changes and even for a few years after the war commenced. In 1916-17, with increasing difficulties in obtaining the materials required for maintenance of locomotives and of rolling-stock, and in order to reduce the demands therefor as much as possible and at the same time to conserve all locomotive power for the carriage of military and other essential traffic, it was decided to effect a reduction in the number of passengers travelling. The first step taken by railway administrations was to enhance the rates within the sanctioned maxima. This not having given adequate relief, the Government of India issued orders in April 1917 enhancing the maxima for passengers as follows :—

I Class	... 24 pies per mile.	
II "	... 12 " "	
Intermediate Class	... 6 " "	
III Class	... 4 " "	by mail and fast passenger trains only.

Almost simultaneously the Freight (Railway and Inland Steam Vessel) Tax Act 1917 was passed, bringing into force, with effect from April 1, 1917, a surcharge of one pie per maund on coal, coke and firewood and of 2 pies per maund on all other goods carried by a railway administration or inland steam-vessel with certain exceptions, the object being to obtain as a war measure additional revenue of about £500,000, and the entire proceeds being held to accrue to Government and not treated as a part of railway earnings. In order to relieve the general revenue position and as an emergency measure, the rate of surcharge was further increased with effect from April 1, 1921 to 2½ annas per Rupee of freight payable on all goods traffic excluding grain and pulses, firewood and fodder but including all coaching traffic other than passengers. The surcharge was not leviable on traffic which was exempt from surcharge previously in force and on consignments on which freight payable was less than Rupee one. This increase in the rate of surcharge met with a certain amount of opposition from railway companies. Their opposition was based on the grounds briefly that (i) the surcharge was no longer required as a war measure ; (ii) that it was not treated as a part of gross earnings of the railway to be shared by the company with Government like other earnings and therefore not in accord with their contracts ; and (iii) if the necessity for raising rates was admitted, the principle underlying the surcharge was unsound and the incidence inequitable. The suggestion of the companies was that there should be a general increase in the maximum rates and fares and that discretion should be allowed to them to adjust the rates within those maxima. The Government of India had already considered this question and decided that the enhancement of the maxima and the readjustment of the various rates in time enough to permit of their levy from April 1, 1921 was not possible. Animadverting upon the levy of the surcharge the Acworth Committee held that the Indian railway rates and fares had always been among the lowest, if not actually the lowest, in the world, that a general and substantial increase was overdue and that

witnesses from all parts of India recognized that rates and fares should be increased and expressed a readiness to pay the increases, provided a reasonably efficient service was given in return.

Increase of revenue by means of a surcharge was resorted to only as an emergency measure. In connection with the budget for 1922-3, the Government of India decided to abolish the surcharge and to enhance further the maxima for passenger traffic as follows, the minima remaining as before :—

PASSENGER FARES (per mile)

	Maximum Pies.		Minimum Pies.
I Class ...	32		12
II Class...	16		6
Intermediate Class.	7½	by fast trains	3
	6	by ordinary trains	
III Class...	5	by fast trains	1½
	4	by ordinary trains	

Also to reclassify goods traffic into ten classes instead of the previous five classes besides the special class and to fix revised maxima for these classes as given below. Revised rates and fares in accordance with these maxima and minima were brought into force by the several administrations as early as possible in the year 1922–23.

GOODS RATES (per maund per mile)

	Maximum Pies.	Minimum Pies
I	·38	·100
II	·42	
III	·58	
IV	·62	
V	·77	
VI	·83	
VII	·96	·166
VIII	1·04	
IX	1·25	
X	1·87	

The rates for parcels were increased by 25 per cent from February 1, 1921. Simultaneously with the revision of passenger fares and goods rates from April 1, 1922, the rates for parcels were also revised, the details of which need not be dwelt upon.

Coal being a commodity of vital interest to the country and to industries in general, the rates for its carriage have always received special attention. The maximum rates now in force for public coal carried at owner's risk in full wagon loads are as follows :—

(1) For all distances up to 400 miles inclusive—

	Per maund per mile.
1—200 miles	0·165 Pie.
Plus 201—400 miles ...	0·150 „

(2) For all distances above 400 miles—

	Per maund per mile.
1—400 miles	0·150 Pie.
Plus for any distance in excess of 400 miles	0·100 „

The results, however, did not come up to expectations; indications were not wanting in the course of the year that the budget estimates would not be realized. The actuals for 1922-23 were Rs. 93·22 crores as against the estimate of Rs. 99 crores and as compared with Rs. 81 crores realized during 1921-22.

Railway administrations have, for a long time, had authority to make special reductions of passenger fares or goods rates to suit any special occasions of a fair, to foster any particular kind of traffic or to meet any special case, subject to the condition that should any such alteration be contemplated to last over 3 months or any permanent change be considered desirable, a reference should be made to the Government of India. This permitted of fares being quoted for double journeys down to the minimum limit fixed for a single journey. Under this permissive clause, concession tickets for passengers of the higher classes were long in vogue. Some of them may be mentioned here, viz., week-end return tickets at a single fare, fortnightly return tickets

at a fare and a third, four monthly, six monthly or eight monthly return tickets at a fare and a half, the last two mostly in connection with the overseas journeys of passengers. In connection with the Durga Puja and with the Xmas holidays, return journey tickets were also issued for a single fare. Theatrical troupes, musical or concert parties, cricket, football and hockey teams, polo-teams and hunting parties, school children and college students, volunteers, non-commissioned officers and men of the Royal Navy, Royal Marines and British Army with their families, Native Officers of the Indian Army and of the Imperial Service Troops, Commissioned and Warrant Officers of the Royal Indian Marine, Masonic and Good Templars' Lodges and others were also given concessions in rates and fares. During the war most of these concessions were withdrawn owing to the demand on the carrying capacity of railways for other purposes. When the war was over and when the public would have ordinarily looked forward to the restoration of these concessions, the financial results of the working of railways were so unpromising and the question of raising rates and fares so much a matter of necessity that these had to continue in abeyance. Some railways have recently restored a few of these concessions and the rest may be expected to follow, when the working expenses of railways are reduced and the railways are in a position to give an adequate return on the capital invested.

It was remarked earlier that the Railways Act contained a provision as to the remedy in case of preferential treatment being given by a railway to a trader or class of traders or traders in any locality. The complaints had in the first instance to be made to the Governor-General in Council who was to refer them to the Railway Commission for decision. The Commission was not of a permanent nature. The protection thus laid down by statute, the Acworth Committee have described as but nominal, as the enforcement of the remedy under this Act involved the setting up of a special court to try each individual case and this procedure was so cumbrous and inapt that in fact no

court has ever sat. None the less allegations of undue preference have frequently been made, and several were strongly urged on the attention of the Committee. The Committee therefore recommended that a cheap and expeditious tribunal should be established to try such cases of complaints. One positive outcome of such a court will at any rate be to prove that, in the main, these allegations are unfounded and to remove in a measure the sense of grievance on the part of traders. The Committee's recommendation is the establishment of a permanent Rates Tribunal consisting of an experienced lawyer as Chairman and two lay-members, representing railways and commercial interests respectively, with power in any case deemed of sufficient importance to add two additional members one on each side. Jurisdiction of the Tribunal should embrace all questions of the reasonableness of rates even within the contractual maxima and minima and of the conditions attached thereto, whether the question be the unreasonableness of the rate *per se* or its unreasonableness as compared with the rates charged to other persons or at other places in what are alleged to be comparable conditions. The Tribunal might also have jurisdiction in respect of the obligation to provide reasonable facilities. This recommendation has not yet materialized.

Before concluding this chapter, a few words may be added about the Indian goods tariff. The Indian goods tariff has throughout been a somewhat complicated business and difficult to understand, notwithstanding the efforts made from time to time to simplify it. The late Mr. Robertson recommended that for through booking there should be one general classification of goods for all India and subject, of course, to exceptions, one scale of rates applicable on the through distance from station of origin to station of destination, following the general practice both in England and in America, and that all rates should be calculated on the prescribed scale by the shortest route and divided in mileage proportion between the railways actually used for the traffic. If improvements are effected in this direction, it would be practicable, as suggested by the Indian Railway Accounts

Committee,[1] to issue rate-books for the guidance of the station staff which would also be of use to the trading public, thereby removing the annoyance to which they are now subjected on account of under-charges and over-charges. The idea having further received the *imprimatur* of the Inchcape Committee, some measure of advance may be anticipated.

[1] A Committee appointed by the Secretary of State for India, with Mr. G. W. V. de Rhe Philipe, O.B.E. as President, with a view to suggest improvements in the Indian system of account, of audit and apportionment of railway receipts.

CHAPTER X

SOME RAILWAY PROBLEMS—TRAFFIC AND OTHERS

If ambition is the spur to achievement in private life, so does the due regard for the grievances of the public spur railway administrations to the amelioration of the conditions of travel of passengers and of the carriage of public goods. Among the grievances dealt with and recommendations made in the report by the late Mr. Robertson the following may be mentioned :—

(1) Overcrowding of third class carriages and the absence of proper facilities for pilgrim traffic as evidenced by the system of conveying pilgrims in goods wagons.

(2) Levy of unauthorized charges from third class passengers and of fees from traders in connection with the supply of wagons.

(3) Improvements in the number of booking offices and the time for which they are kept open.

(4) Complaint against and dissatisfaction with the delay in connection with claims for compensation.

(5) That all new passenger vehicles including those of the third class should be fitted with lavatory accommodation.

Besides delay in the settlement of claims and bribery in connection with the allotment of wagons, the following grievances of the third class passengers have found a place in the Acworth Committee's report :—

(1) Overcrowding.

(2) Inaccessibility and insanitary condition of water closets in the carriages for long distance journeys.

(3) Dirty condition of the carriages.

(4) Inadequate water-supply on station platforms.

(5) Inadequate food-supply arrangements.

(6) Inadequate waiting rooms.

(7) Insufficient booking office facilities.

(8) Uncivil treatment by railway staff.

It will be noticed that some of the complaints find a place in both the reports but any inference to the effect that no improvement has taken place during the period of well-nigh two decades between the dates of the two reports will be doing a grave injustice to railway administrations. Considerable progress has been made. The only legitimate inference is that perfection is hard to secure in a matter which touches the public in various ways, and where conditions change from time to time, and that further improvements are possible. A few remarks on these grievances may suitably find a place here.

Claims. Prompt disposal of claims for compensation on account of goods lost or damaged has been receiving constant attention. As the following figures will indicate there has been an alarming growth in the amount of expenditure on this account:—

			Rs. (in thousands)
1916-17	...	...	17,95
1917-18	...	...	23,08
1918-19	...	...	45,92
1919-20	...	...	71,25
1920-21	...	...	1,11,86
1921-22	...	...	1,16,22

A certain measure of increase can no doubt be justified on the grounds of (i) increased traffic ; (ii) increase in the price of commodities ; but all railway administrations are alive to the necessity for effecting reduction in this item of expenditure. Among the measures taken to secure this end may be mentioned the reorganization of the railway watch and ward staff, better lighting of station yards and more efficient methods for securing the contents of wagons in transit.

Overcrowding. The quinquennial programmes prepared by railways in connection with the outlay of Rs. 150 crores during five years, provide for all possible addition to third class rolling-stock consistent with the supply of English materials required for the purpose and the available facilities in the railway workshops. It is,

of course, not sufficient merely to provide carriages. The accommodation which can be provided depends not only on the available number of carriages but also on the number of trains which can be run, and their speed, the length of the train with due regard to the length of platforms provided, and the gradients *en route*. To run a larger number of trains involves doubling of the line or provision of a larger number of crossing stations and so on. The trains cannot be made longer unless platforms, crossing loops, etc., are lengthened, and other facilities adequately provided, and the tractive power of locomotives improved. Trains cannot be moved at greater speed unless locomotives are improved, which in turn involves the strengthening of the permanent-way. Improvements in all these directions are costly and also take time to carry out; but they are none the less receiving the attention consistent with the requirement that all additional expenditure should be justified financially. The Government have also issued instructions that as far as practicable the use of goods stock for the carriage of pilgrims should be discontinued. While it cannot be gainsaid that improvements in the matter of relieving overcrowding are possible, it is advisable to remember that to provide extra rolling-stock merely to deal adequately with special rushes of traffic, infrequent and of short duration, is not a sound economic proposition.

The reduction of bribery and corruption in connection with passenger traffic or goods has not been overlooked, and it is believed that considerable improvement has already taken place. To expect that this will disappear altogether from the field of railway working any more than from other fields of human activity is Utopian, so long as some of the public will endeavour to obtain better facilities than others or the same facilities in advance of or in preference to others. Improvement may be expected only from the public placing less temptation in the way of the staff, and on the other hand staff found guilty being promptly and exemplarily punished.

Treatment of Passengers. General instructions have been issued by all railway administrations warning their staff that serious notice will be taken of incivility or

want of attention to passengers. In fact, civil behaviour to passengers and attention to their requirements and conveniences are enjoined on their staff by all railways in their standing instructions. Morever Indian Passenger Superintendents have been appointed on several railways whose sole duty is to look after third class passengers and to afford them advice and assistance.

Booking Facilities. Branch booking offices have been added to in number and those already in existence are kept open for a longer time. Many offices are open throughout the day. These facilities involve additional expenditure on account of staff, etc., and their retention will no doubt depend on there being adequate demand for them.

Increase of waiting accommodation, arrangements for the supply of cool water for drinking and the provision of conveniences in third class carriages are matters which have received due attention from railway administrations in the preparation of their quinquennial programmes. The provision of adequate facilities for the supply of foodstuffs to third class passengers is a problem not easy of solution, though Government Inspectors have been instructed to pay attention to it. The problem is rendered more difficult owing to the caste-requirements of passengers. Considerable improvements have been effected in the arrangements made at large junctions and stations where tea and refreshments are provided at a fair price and with due regard to sanitary conditions and caste scruples. As regards the supply of focd-stuffs *en route*, i.e., in the train itself by means of restaurant cars, experiments have been made on several lines, but except possibly in Southern India, these have not so far proved a success. The reason for this is to be found perhaps in the unwillingness of the third class passenger to leave his seat and the comparative expensiveness of the food supplied by this agency.

Latrine Accommodation. More than two-thirds of the total lower class coaches have been provided with latrines, and all new stock except those intended for suburban service have, for several years, been built with improved facilities in this direction.

Gauge. The question of a uniform gauge has been exercising the minds of the railway men all the world over. As has already been noticed there are four gauges in use in India at the present day, the bulk of the mileage being divided between the standard gauge (5′ 6″) and metre gauge (3′ 3⅜″). It affords some satisfaction, however melancholy, to notice that many other countries are in a much worse position. The United Kingdom has railway lines of 12 different gauges of which 84 per cent is of the 4′ 8½″ gauge, about 15 per cent of the 5′ 3″ gauge and less than 1 per cent of 3′ 0″ gauge. There are other countries besides India which are in an equally bad position, of which Australia, Chili, Brazil, Spain and Sweden may be mentioned.

Though a variety of gauges is an evil, the Government of India cannot be accused of not having fully considered the problem in all its aspects from time to time.

The adoption of 4′ 8½″ gauge on English railways as the standard was a mere accident, due to the colliery tramways on which locomotive traction was first introduced being of this width. When railway construction in India was first mooted, the Court of Directors of the East India Company were disposed to recommend the adoption of the same gauge in India. This suggestion the Government of India strongly resisted. They laid stress on a gauge of 6′ 0″. The Court of Directors however decided upon 5′ 6″ as the most suitable and thus 5′ 6″ gauge came to be adopted as the standard gauge in India. The declared policy in 1862 was that it was essential to insist on the adoption of the standard gauge of 5′ 6″ on all railways that were intended to form portions of main lines, but when lines were designed as *bona-fide* tramways, that is feeders to the main system but not essential parts of it, and when the expected traffic might not warrant the outlay necessary for the formation of a full gauge line, the Government of India would sanction narrow gauge light lines as a temporary expedient on the conviction that such lines would be replaced by full gauge lines of a more substantial character whenever the development of traffic rendered

such a course desirable. It was in pursuance of this policy that a line of 4′ 0″ gauge was permitted to be laid from Nalhati to Azimganj in 1863 and a line of 3′ 6¾″ gauge from Arkonam to Conjeevaram in 1865.

The question of adopting a second and narrow gauge for railway construction was taken up in 1869. The Government of India felt that whatever the conveniences in uniformity of gauge may be, there was a risk of too great importance being attached thereto. They held the view that where the distances to be traversed were very great, as in India, the inconveniences attendant upon a break of gauge were of secondary importance, and that if the financial objections were not insuperable, the railways should be built to the standard gauge, but that when the prospects of return from any contemplated system were not satisfactory, the question of building it on a narrow gauge should be open to consideration. A committee of engineers was appointed to settle the size of narrow gauge most suited to the wants of India, but its report which was issued in 1870 was not unanimous. The gauges recommended were the 3′ 6″ and the 2′ 9″ and the majority were in favour of the latter. The Government of India recommended the adoption of 3′ 3″ gauge, and this being so nearly a metre, the narrow gauge was shortly after decided upon as 3′ 3⅜″. Orders were immediately issued to proceed with construction on the narrow gauge.

The question of the gauge continued however to receive attention. The late Sir Guilford Molesworth, Consulting Engineer for State Railways, submitted an elaborate report in 1873 stating *inter alia* that the metre gauge system was sufficient for all commercial and military purposes, and that a break of gauge was a very serious evil from a military point of view. He advocated a comprehensive system of narrow gauge lines and suggested even the conversion of certain broad gauge lines to metre gauge. But this extreme view did not find favour with the Government and it was decided in 1874 to have both gauges in use. The question received the attention of a Select Committee of the House of

Commons also in 1884. The Committee's view, which was in agreement with that held by the Government of India and which was in 1890 concurred in by the Secretary of State, was that main lines should be on the broad gauge and that metre gauge lines should be confined to tracts of country where that system was in successful operation and the traffic did not justify the more costly broad gauge. The Secretary of State also held that each case of branch and feeder lines should be considered on its merits. On a suggestion of the Government of India that it might be ultimately necessary to convert a great part of the mileage in order to obtain uniformity, he threw cold water. He held that the money required for this purpose would be better employed in making lines of a uniform gauge with those connected through districts unprovided with railway communication. Considered as a whole, the introduction of the metre gauge railway cannot but be held to have been a wise move. It has enabled a greater length of line to be constructed and reduced the demand on the general revenues of the country in the earlier years of construction in the shape of guaranteed interest. If the standard gauge had been adhered to, the progress of construction would have been considerably reduced, this result being due not only to the greater initial outlay but also to the inadequacy of results in the first instance.

Lines have also been built on 2′ 6″ and 2′ 0″ gauges but these are very limited in extent.

Conversions of lines from one gauge to another have been not infrequent. Some have been carried out for purely strategic purposes. More commonly conversion is owing to development of traffic and economy in traffic working as in the conversion of the Nowshera-Durghai line from 2′ 6″ gauge to standard gauge, and for administrative purposes and economy in working as in the contemplated conversion of the metre gauge line from Erode to Trichinopoly to broad gauge, which, it may be mentioned in passing, existed as a broad gauge prior to 1880.

It will thus be seen that the question of gauges has been a live one and has received the consideration of the Government from time to time. The Acworth Com-

mittee expressed the opinion that a thorough investigation of the problem by a special commission of experts was very important. It would however be rash to predict whether and when a uniformity of gauge throughout India will be achieved.

If the question of a uniform gauge for main lines in India should be taken up in the future, the choice is not likely to lie between the 5′ 6″ and 3′ 3⅜″ gauges only. Of railways of metre gauge or a broader gauge there are in the rest of Asia 6,926 miles of 5′ 0″ gauge, 8,731 miles of 4′ 8½″ gauge, 9,988 miles of 3′ 6″ gauge and 2,558 miles of 3′ 3⅜″ gauge.

Even in the medley of gauges obtaining in Europe ranging from 5′ 3″ to 1′ 3″, there are over 89,000 miles on 4′ 8½″ gauge out of over 114,000 miles, and the claims of the 4′ 8½″ gauge will require serious consideration. In the opinion of the late Mr. Robertson the remedy for this gauge-evil in India appeared to be in the adoption of the 4′ 8½″ gauge. He thought that such a course would involve no change in the roadway of the 5′ 6″ gauge railways and no reduction in the size of their rolling-stock, whereas it would also cost far less to convert the metre gauge to 4′ 8½″ gauge than to convert it into the standard gauge. A uniform gauge may be a dream but it is worth serious attention whether one or the other of the gauges 2′ 6″ and 2′ 0″ should not be eliminated from the Indian railway system.

Stores. As will be understood railways purchase large quantities of materials from year to year in connection not only with new constructions and maintenance of existing lines, but also with their working. The purchases made during recent years under the several classes of stores are given in Appendix III. The rules governing the purchases of stores in India may be summarised as below :—

Subject to prices not being unfavourable and the materials satisfying such tests as may be prescribed :—

(1) All articles, produced in India in the form of raw materials or manufactured from materials produced in India, should be purchased locally.

(2) All articles manufactured in India from imported materials should be purchased in India, provided a substantial part of the process of manufacture has been performed in India.

(3) Articles which are not manufactured in India should, with certain exceptions, be obtained by indent on the India Office, their local purchase being authorised in certain circumstances provided the articles are in India at the time of the purchase.

These rules have however been revised recently, and now show a more definite preference for stores produced or manufactured wholly or partly in India, and give larger powers to authorities in India to purchase imported stores locally.

Further, to encourage indigenous enterprises the Government of India are already under contract with the Tata Iron and Steel Company, Limited, for the supply of large quantities of steel rails, plates and sections. In order to encourage the wagon-building industry in India, the Government of India announced in a *communiqué* dated March 1, 1918, their intention to purchase in India 3,000 wagons annually for ten years, provided the price was not higher than the price at which wagons can be imported, and subject to conditions which will ensure that the materials and workmanship are satisfactory. More recently by a *communiqué* dated October 1, 1921, the Government of India announced their intention to call annually for tenders both in India and in England for the supply of all the railway locomotive engines and boilers required by them during 12 years commencing from 1923. These attempts to encourage the building of locomotives and wagons in India have so far not been successful, firstly because these industries appear to be unable in their initial stage to produce as cheaply as old established firms in foreign countries and, secondly, because owing to abnormal economic conditions in Europe, the manufacturing firms have, it is alleged, quoted prices below the commercial cost of production.

Stores purchased by state-worked railways are exempt from customs in the same manner as other Government

stores, and the Fiscal Commission[1] recommended that this privilege should be abrogated. The Commission considered that such exemption tended to purchases of stores being made in England rather than in India. The Sea Customs Act (1878) has accordingly been amended and in future all stores whether obtained for company-worked railways or for state-worked railways will be subject to customs. This step may be expected to help the advance of Indian industries.

Stores Balances. Owing to the consumption of large quantities of imported stores and to the conditions prevailing in regard to the supply of indigenous stores, a practice has grown up on railways of holding large stocks of stores. At the end of 1921-22 the value of stores held in stock by the ten principal railways—three of them state-worked and the remainder company-worked—amounted to over Rs. 22 crores as reported by the Inchcape Committee. The custody of this vast quantity naturally involved considerable expense in the matter of the provision of the requisite accommodation and staff, besides losses due to deterioration, theft, etc. The Committee observed that the stocks held were on an extravagant scale and recommended that steps be taken, by careful scrutiny of indents, to effect an early and substantial reduction, thus emphasizing a course of action which had already been receiving the attention of Government. It is obvious that the locking up of capital to the extent of over Rs. 22 crores involves more than Rs. 1 crore in interest alone, and any reduction in the stores balance should be welcome. This can be effected by (i) scrutiny of indents so as not to get materials already in stock; (ii) rigid attention to scales laid down with reference to the quantities consumed and the conditions of supply; (iii) preference being given to purchases in India over imports, as this will enable smaller stock to be carried. These and other devices will no doubt receive the

[1] The Fiscal Commission was appointed by the Government of India in 1921 with the Hon'ble Sir Ibrahim Rahmitoola, Kt., C.I.E. as President, to examine the tariff policy of the Government of India, including the question of the desirability of adopting the principle of Imperial Preference, and to make recommendations.

attention of railways, as it is to their interest to reduce these balances.

Allocation. The first contracts for the construction and working of railways made between the East India Company and the railway companies, e.g., the East Indian Railway and the Great Indian Peninsula Railway Companies, provided that capital account shall include all expenditure relating to the construction of the line, works, conveniences and telegraphs thereto belonging, and all expenditure relating to the original cost of engines, carriages and other plant and machinery which shall have received the sanction of the East India Company. From the opening of the line the cost of maintaining it with its machinery and stock in good working condition shall be payable out of the revenues of the Railway. The cost incurred in executing, with the sanction and approval of the East India Company, any additions, alterations or improvements such as shall be properly chargeable to capital shall also be added to the capital account. These directions in the contract were not quite clear in regard to certain questions relating to the allocation of expenditure, and on a reference being made to the Secretary of State, Sir Charles Wood in his Despatch No. 17, dated March 9, 1864, laid down certain general principles on the subject which are in brief as follows:—

The cost of new works, e.g., an additional length of railway, doubling of an existing line, additional stations or any important buildings, furnaces for engine lighting purposes, may be charged to capital. The expenditure relating to permanent enlargement and improvement in the character and object of a previous structure, e.g., conversion of a blind siding into a through siding, may also be charged to capital. In relaying rails, if the original rails have proved too light, and additional strength in weight of iron or steel is required capital account shall bear the difference between the cost of the new and improved rails and that of replacing the old rails by rails of similar character; this same principle shall be applied in cases of replacing wooden sleepers by iron sleepers. The first expenses

of any addition to rolling-stock and of any important improvements or alterations made in the same, may be charged against capital. The cost of maintaining the line and works after the line is thrown open for traffic, the cost of the mere substitution of one structure for another without involving any permanent enlargement and improvement in the character and object thereof, cost of renewals of rails by rails of similar character, cost of all repairs and less important alterations to rolling-stock, the cost of mere appurtenances of rolling-stock after the opening of a line and of changes like substitution of one mode of lighting for another, shall all be charged to revenue. If however any extraordinary casualty should occur, such as the destruction of a bridge by flood, the allocation of the cost of construction or replacement between capital and revenue shall be determined according to the circumstances of the case. These main principles have been adhered to all along and detailed rules based on them have been framed from time to time as occasion arose with the result that, as observed by the Acworth Committee, the capital cost per mile of the Indian railways must be regarded as very moderate.

The Inchcape Committee was however of opinion that the existing regulations afforded undue relief to capital, and have recommended that they should be reviewed and revised to ensure a more equitable distribution between capital and revenue. What action the Government propose to take in the matter is not clear, but whatever alterations are made in the existing regulations must take cognizance of the contractual relation between Government and the Companies in the case of company-worked railways.

Strategic Railways. Early in the history of railway construction it was recognized that apart from commercial lines, that is lines which would open up districts whose actual resources were the largest and least developed, it would be necessary to construct political or strategic lines. In 1881 the Secretary of State definitely laid down that the construction of railways was to be considered on 'commercial principles' and divided public works, including railways, into two classes,

Productive and Protective, the former comprising works which showed a reasonable prospect of paying 4 per cent[1] on the capital invested within a period of 5 years from the date of the opening of the line for traffic, and the latter comprising works which were not directly remunerative but were necessary to guard against future expenditure on famine relief. The general policy was to construct productive railways from borrowed funds and to construct protective and strategic railways from revenue. It is interesting to note that in connection with a large programme of strategic railways proposed in 1884, the Government of India suggested its being carried out from borrowed funds, steps being taken to discharge it in 30 years by means of terminable annuities and a sinking fund, and that this proposal did not receive whole-hearted support from the Secretary of State.

The Indian State Railway system now comprises productive railways and non-productive railways, the latter including strategic railways which are all included in the North-Western Railway system. Early in 1922 a resolution was moved in the Legislative Assembly recommending that in future a separate revenue and expenditure account should be kept of the working of strategic lines, that the losses connected with the working of these railways should be debited and the profits, if any, credited to the Military Department and that the capital outlay on new lines or works of this nature should be debited to military accounts. The first part of the resolution was adopted and has been given effect to and it will now be easy to ascertain what the expenditure on strategic railways has been and the results of their working. The practical difficulty against the adoption of the second part of the resolution may be briefly explained thus :—

(1) The general principle in the accounting of Government expenditure has been that the department incurring the expenditure shall bear it even if other departments benefit thereby. To sub-divide expenditure to accord with services performed would lead to confusion in accounts.

[1] The rate now stands at 6 per cent per annum.

(2) It is not easy to draw a line between railways which are solely military and those which serve a commercial purpose, except perhaps in such cases as the Khyber Railway. The mere failure to meet working expenses and interest charges is no criterion that a railway is a strategic railway, and certain railways now so circumstanced were certainly not constructed to meet military requirements.

(3) There is the further practical difficulty that the Military Department may claim a voice in the working of what may be called strategic railways, which in normal times may involve difficulties in respect of services not deemed necessary for military purposes.

Depreciation Fund. The Acworth Committee was surprised to find that the system of financial control exercised by Government had not secured even correct and unimpeachable financial orthodoxy. The Committee was of opinion that just as a prudent Board of Directors of a commercial concern would, especially when it was prosperous and paying substantial dividends, have taken good care that revenue was debited with its full share, on the principle that by the time the useful life of an asset or a building has expired, its full original cost should be written off against revenue, and thus built up a replacement reserve, the railways in India also should have accumulated a reserve for renewals. The gravamen of the charge against the existing system was reinforced by the fact that for some years previous to the enquiries by the Committee, i.e. during the years of the War, for reasons already referred to, the question of renewals had not received sufficient attention.

In explanation of the existing system, some old history merits a brief reference. In an earlier chapter it has been mentioned that one of the terms of the original contract with the East Indian Railway and the other earlier guaranteed companies was that a reserve fund was to be instituted for making good deterioration. These reserve funds were maintained for many years. But it was found that so long as a fixed guaranteed interest was payable to the company and the railways had not come to the stage of earning such interest, the

appropriation from revenue to the reserve fund was really out of Government moneys and that it was all a one-sided bargain. Hence this system was abolished, and the last of the reserve funds, viz., that of the Great Indian Peninsula Railway, was broken up in 1875. Subsequent contracts consequently contained provision for the property being kept in a state of efficiency and good condition at the expense of revenue, with the result that, so long as conditions were not abnormal, expenditure on maintenance was duly incurred from time to time and the property of the Government maintained in good condition. The Government had their own servants to see that this condition of the contract was duly fulfilled by the company and not evaded. This system is not of course the same as building up a reserve fund. Some of the later contracts, however, contain a clause to the effect that the Secretary of State may, at any time, call upon the company to establish and maintain, out of contributions from revenue, a reserve fund for the purpose of making good deterioration of permanent-way and rolling-stock.

If the Government worked all the railways, the need for a depreciation fund might be disputed. But so long as a conflict of interests between the proprietors and the working agency exists, and the interest of the latter is determinable at some time or other, the necessity for ensuring that the working results of each year are debited with all charges incurred or prospective and the building up of a reserve fund as a means to this end require recognition.

Grouping. The Indian railway system of 32,766 miles is worked by over forty administrations, of which only seven manage not less than a total of 2,000 miles each, and it is doubtful whether such a large number of agencies can provide the public with the most efficient and the most economical service possible. The advisability of not increasing the number of conflicting interests was, it will be recollected, recognized long ago. This idea was given effect to in recent years when the Indian Midland Railway System was handed over to the Great Indian Peninsula Railway for working,

when the East Coast Railway was divided up and given to the Bengal Nagpur and the Madras Railways, and when later the Madras Railway System was divided between the Southern Mahratta Railway and the South Indian Railway. The idea of regrouping the East Indian, the Great Indian Peninsula, and the Oudh and Rohilkhand Railways is now receiving consideration. While it is not impossible to effect further regrouping, it is doubtful to what extent this can be carried out, apart from legislation, having due regard to vested interests. An object lesson will be found in the grouping lately carried out in England; but it must be remembered that for some time prior to the grouping, the working of all the railways had been in Government hands as a war measure. Moreover the results of the grouping are still to be seen.

Accounts and Statistics. The deliberations of the Indian Railway Accounts Committee have already been referred to. Simplification of railway accounts in all directions, and modification of the statistics compiled by railways with a view to making them of greater assistance to the railway executive in the management of the property entrusted to their care, have been emphasized in the reports of the Acworth and the Inchcape Committees, and these matters are receiving due attention.

Indianization. The total number of servants employed on all open lines was 754,478 at the end of the year 1921–22 and its distribution was as follows:—

Europeans 6,858.
Anglo-Indians 11,831.
Indians 735,789.

These numbers comprise both the superior and subordinate appointments. It has long been a complaint that the Europeans and the Anglo-Indians enjoy a larger share of the higher paid posts than the Indians. Indian public opinion on the subject found expression in a resolution adopted in the Council of State in February, 1922 recommending to the Governor-General in Council the necessity of taking early steps to increase the number of Indians in the higher grades of service on the State-managed railways, and of devising means to secure the adoption of a similar policy by companies

managing State railways. In accepting the resolution, the Government pointed out that they had already accepted the policy of gradually Indianizing all the public services and added that that policy would be applied to the higher railway establishments subject to the necessity of making efficiency the main consideration. Company-worked railways have also expressed their agreement with the policy of the Government of India. At the end of 1921–22 on state-worked railways the proportion of Indian officers was 20 per cent in the Engineering Department; 25 per cent in the Superior Traffic Department; and 8 per cent in the Superior Stores Department. On company-worked and state-worked railways combined, there were 81 Indians in the Engineering Department; 82 in the Traffic Department; 23 in the Audit Department and 7 in the Stores and Printing Department. Further progress is being watched by the Government.

Indianization of the superior grades in the Locomotive and Carriage and Wagon Departments cannot make any progress until facilities for mechanical training are provided in India. At present there are classes held in connection with the workshops on almost every railway, where technical instruction and practical training is given to apprentices, both Indian and Anglo-Indian, which will qualify them after a course of 4 or 5 years for appointment in the lower grades of service in these Departments. Adequate provision for the education and training in India of young men for the superior grades does not exist at present.

The question of the possibility of providing in India satisfactory courses of training for candidates for railway appointments both in the superior and subordinate ranks was investigated by Mr. H. L. Cole, O.B.E., an officer placed on special duty for the purpose, and his report is under the consideration of the Government of India. It is satisfactory to note that Mr. Cole advocates the provision of the means of training in India of recruits for the higher grades of all departments, and that he proposes to secure this by co-operation of railways with the existing educational institutions so as to combine

practical training available on railways with technical and other instruction in suitable proportions, the educational institutions being assisted by railway funds in order to provide facilities required for giving the necessary theoretical and practical courses. The report augurs well for the future.

CHAPTER XI

RAILWAY STAFF

In considering the working and financial results of railways, the agency by means of which these results are achieved should not be overlooked. At the end of 1921–22 there were, as already mentioned, more than three-quarters of a million men employed on railways. The vast majority of these are on a non-pensionable footing, i.e., they will not be eligible for a pension when their term of service is over, the only exception being certain engineering staff employed on State-worked railways. It is meet therefore that a brief description should here be given of the manner in which their well-being is looked after.

The most important feature is the Provident Fund which was established with effect from January 1, 1880. The employee is required to subscribe one-twelfth of his emoluments every month. The railway administration contributes thereto an equal sum of money, and the sum total of these, with interest added nowadays at 5½ per cent per annum, is the savings to which an employee should look forward in his days of retirement. Owing to the fact that certain low paid staff such as engineering gangs are not eligible to subscribe to the fund, the total number of members of the fund at the end of 1921–22 was about two hundred thousand only and the total sum to their credit amounted to over Rs. 19 crores.

Till a few years ago these funds were administered by the respective railway companies through Provident Fund Committees at the risk of the subscribers themselves. During the war however the securities in which the assets were invested depreciated in value considerably, with the result that the depositors' savings were found to have appreciably shrunk. The Government therefore came to their rescue and took over the assets on a fair basis of valuation and at present the moneys of the Provident Funds of all state-owned railways are in the hands of

Government, and Government are responsible for paying to subscribers the amount to their credit.

The staff being non-pensionable there was not any incentive for them to remain in service without interruption. Men were prepared to leave in order to better their prospects or on other personal grounds and to seek service again after a short interval. The temptation to strike was also great. As a preventive, the gratuity came into force in 1911, which in the case of subordinates is paid after an employee has put in not less than 15 years of good, faithful, continuous and efficient service, subject to the fulfilment of certain other conditions which it is needless to detail here. The economic upheaval which was one of the aftermaths of the war made itself felt among the railway staff also, and it was found that the prospect of gratuity on condition of continuous service was not a sufficient restraint to prevent men from entering on strikes. During the years 1920 and 1921 there were no less than 28 strikes, and one of the grievances made much of was the existence of the rule that participation in a strike involved *ipso facto* forfeiture of the man's claim to gratuity in respect of previous service. Labour conditions having altered the world over, the Government have now agreed that participation in an illegal strike only shall involve forfeiture of claim to gratuity, and legislation dealing with strikes, whether in connection with railway service or other essential national services, is likely to be enacted shortly.

Besides the above-mentioned gratuity, a gratuity is also given to employees who retire with less than 15 years service on account of ill-health or reduction of establishment. The gratuity admissible in these circumstances is paid to the widow or dependent children of an employee in case he dies while in service. On grounds of compassion the widows of employees, their children or other dependent relatives, e.g., parents, are also given gratuity in special circumstances in which no service-gratuity may be admissible.

Superior officers also get gratuity according to a scale and subject to certain conditions up to a limit of 12 months' pay and not exceeding Rs. 25,000.

Railway servants who are injured or the dependents of such servants as are killed, in the discharge of their duties, in accidents caused by the working of trains or railway engines, otherwise than through their own negligence or wilful action, are eligible under the regulations to the grant of compensation-gratuities, the limit of the power of Agents to sanction gratuities being Rs. 6,000 in each case and that of the Railway Board Rs. 15,000. The Workmen's Compensation Act (Act VIII of 1923) coming into force on July 1, 1924 places the grant of compensation on a statutory basis.

Railway Administrations have provided hospitals and dispensaries where railway staff receive medical advice and medicines free of charge.

The railway employees enjoy the privilege of passes also, i.e. permits enabling them to make railway journeys free of charge, but these passes are of course limited in number. They are, however, supplemented by means of P. T. O.'s which permit of tickets being obtained at one-third fare.

By the nature of their duties, a large number of employees, e.g. guards, drivers, station staff are required to live close to the railway line either within station precincts or near by. It is the policy therefore to provide such staff with quarters built by the railway. In return the employees pay a nominal rent and in some cases no rent at all. Where it is usual to provide quarters and the railway is not in a position to provide them, the employee is paid an allowance in lieu. An evidence of the policy of providing quarters will be found in the railway colonies of subordinate staff quarters at Kharagpur, Moghalpura (close to Lahore), Perambur and so on.

Besides Provident Fund benefits and gratuity, the railway employee enjoys other amenities in the course of his service. Mindful of the old adage *Mens sana in corpore sano*, scope for healthy recreation is provided in railway institutes where the employee gets opportunities of playing tennis, etc. Social intercourse also is promoted there. At important centres of railway working, theatres and churches are built at the expense of the railway administration.

The education of the children of railway employees is not overlooked. Where schools exist, assistance is given to them in the form of a capitation grant. Where schools do not already exist or the children are sufficiently numerous to warrant the maintenance of railway schools, these are worked and maintained by the railway authorities.

The employees themselves get lessons in self-government and co-operation by means of railway co-operative credit societies and co-operative stores. The former exist on most of the important railways and have, it is believed, served a useful purpose in the economic welfare of the members. In these societies the railway administrations as such have no financial interest.

Older than credit societies and no less far-reaching in their influence are the co-operative stores. These institutions obtain assistance from the railway administrations in the matter of freight on supplies carried, the rate being generally the rate for railway stores and consequently much lower than that obtaining for public goods. In other respects they are run on the same lines as the co-operative credit societies, and are independent of the railway administrations and finances.

This chapter cannot be closed without a reference, however brief, to labour unions and strikes. The strike as a means to secure improvement in wages or an amelioration in working conditions has long been experienced in India, but as a means of indicating the displeasure of the staff at any incident of railway administration or of securing the reversal of any order affecting the fortunes of an individual or a small group, it is of recent date. Strikes of one kind or another have unfortunately increased enormously in recent years. The spread of the strike-movement is a sign of the times and is synchronous with that of labour unions. Labour unions have apparently come to stay, and if they exercise a wholesome influence over their members they may prove a source of good. For after all with employers of labour organized on the one hand and employees organized on the other, there is scope for healthy bargaining on not unequal terms.

CHAPTER XII

SUNDRY ACTIVITIES

THE main function of railway administrations is the manufacture and sale of transport. But either in order to produce it cheap or to facilitate its sale, railway administrations in India have from time to time taken up other subsidiary functions, in the same manner as railway administrations have done in other parts of the world.

Collieries. For the running of locomotives the quantity of coal required is enormous, and for this railways have for a long time depended on private collieries, though the East Indian Railway has worked a colliery of its own for over 40 years. Early in this century the Great Indian Peninsula Railway acquired a colliery and shortly before the War broke out the East Indian and the Bengal Nagpur Railways jointly acquired another from which coal began to be raised in 1916–17. The Great Indian Peninsula Railway commenced working a second colliery in 1917–18.

Railway administrations have thus long been alive to the fact that it was neither safe nor economical to depend entirely on private supplies of coal, and this has been emphasized of recent years. Moreover the prices charged have gone up considerably and the supply in accordance with the contracts is not absolutely secure owing to recurring labour troubles in the coal-fields. Certain Railway administrations have consequently arranged within the last few years to lease some coal areas situated in Bihar and Orissa and to work them for themselves. It is proposed to introduce electric working in connection with some of them. When the collieries are developed and in full working condition, the demand of railways on private coal may be expected to be considerably reduced.

The extent to which railways were able to meet their coal requirements during recent years from the produce of their own collieries will be clear from the following statement :—

	(In thousands of tons)	
——	Quantity of coal used by railways	Quantity raised in railway collieries
1914-15	4,946	669
1915-16	5,143	740
1916-17	5,489	864
1917-18	5,617	936
1918-19	5,880	1,250
1919-20	6,055	1,479
1920-21	6,287	1,503
1921-22	5,479	1,389

Sleepers. As may be easily imagined, the railway demand for sleepers is enormous, some four millions per annum having been purchased by Indian railways during the past 10 years. During the next quinquennium, partly on account of new constructions but mainly owing to arrears of renewals being taken up, the demand is expected to be considerably greater, the requirements being estimated at close upon five millions, in accordance with the quinquennial programmes of work prepared by railways which have already been referred to. The majority of the sleepers are wooden sleepers, Indian timber, e.g. Deodar, Sal and Pyngado, forming the bulk of the supply. Foreign wooden sleepers like the creosoted pine sleepers, Australian Jarrah, and Karri sleepers and Fir sleepers are imported to a very small extent

merely to supplement inadequate Indian supplies. Iron and steel sleepers are also much in vogue. Many of the principal railway administrations manufacture iron sleepers for themselves and the manufacture of steel sleepers has been taken up recently. Some interesting statistics on this subject will be found in Appendix III.

Reinforced concrete sleepers are also being manufactured in India and some railway administrations are laying them on their lines as an experimental measure. Experiments in treating inferior classes of timber so as to fit them for use as sleepers are being carried out in the Forest College at Dehra Dun.

Presses. Tickets required by railways have always been printed in their own presses.

Besides the three State-worked railways, viz. the North-Western, the Oudh and Rohilkhand and the Eastern Bengal Railways, some of the company-worked railways also, e.g. the East Indian Railway, have their own presses where the bulk of their printing is carried out. This is found to be both economical and conducive to expedition in execution. As railways have to maintain a small press for urgent and for confidential work, even if they give the bulk of their printing work to private presses for execution, some of them are contemplating the acquisition of presses of their own for carrying out all their work. This is a step in the right direction as it is desirable that railways should be self-contained as far as possible.

Catering. Railway catering is an important matter in which the travelling public are greatly interested. The needs of the higher class passengers who partake of food and refreshments prepared in European style are attended to in refreshment rooms situated at the more important stations and junctions, and *en route* in the dining cars attached to most of the mail and long distance trains. These arrangements have, for a long time, been worked on the contract system, the responsibility of railways having been limited to provision of accommodation and other facilities and to seeing that fair rates are charged. In 1914-15, the Bengal Nagpur Railway took the catering business into its own hands

and the change has been admitted to be a success. Other railways have since followed in the footsteps of the Bengal Nagpur Railway, and it may be trusted that this will lead to the greater satisfaction of the public at no greater expense. The Bengal Nagpur Railway is also running a hotel at Ranchi, an attractive health resort 2,000 feet above sea level and the summer headquarters of the Bihar and Orissa Government, as also one at Puri, a seaside sanitorium much frequented during week-ends.

Steamer Service. For several years the Eastern Bengal Railway ran its own service of steamers in competition with the Indian General Steam Navigation Company between Goalundo and Narainganj and Goalundo and Cachar. Later on, an agreement having been arrived at between the two as regards their respective shares in the traffic offering, the railway discontinued this steamer service. During recent years, the South Indian Railway has, in connection with the through Indo-Ceylon Service, been maintaining a service of steamers between the rail-heads Dhanushkodi and Talai-Mannar.

Some of the railways maintain ferry services also. For instance, the North-Western Railway runs a ferry service across the Indus between Mari Indus and Kalabagh. The Eastern Bengal Railway system is cut up in many places by the Ganges, with the result that several pairs of stations are connected by means of ferries only. The Bengal Nagpur Railway has a wagon-ferry service across the Ganges from Shalamar to Kidderpore Docks.

APPENDIX I

STATISTICS OF WORKING

Year	Mileage open	Capital outlay in lakhs	Gross earnings in lakhs	Working expenses in lakhs	Per cent of working expenses to gross earnings	Per cent of net earnings on capital outlay on open lines
	Miles	RS	RS	RS		
1860	838	2,666	67	37	55·61	1·11
1861	1,587	3,400	99	58	58·90	1·19
1862	2,333	4,800	134	80	59·74	1·13
1863	2,507	5,300	220	133	60·34	1·65
1864	2,958	5,800	286	171	59·76	1·98
1865	3,363	6,300	426	224	52·43	3·20
1866	3,563	7,000	492	259	52·73	3·32
1867	3,929	8,000	545	294	53·95	3·13
1868	4,008	8,400	567	307	54·22	3·09
1869	4,255	8,900	613	342	55.74	3·05
1870	4,771	9,000	667	363	54·47	3·37
1871	5,074	9,001	659	368	55·82	3·24
1872	5,369	9,001	683	373	54·68	3·44
1873	5,697	9,173	723	378	52·28	3·76
1874	6,226	9,587	834	404	48·44	4·48
1875	6,541	10,096	791	397	50·23	3·90
1876	6,860	10,478	934	446	47·81	4·65
1877	7,320	10,904	1,211	539	44·47	6 17
1878	8,201	11,830	1,125	562	49·97	4·76
1879	8,475	12,233	1,208	626	51·84	4·76
1880	8,996	12,857	1,287	648	50·37	4·97
1881	9,858	14,081	1,432	707	49.37	5·16
1882	10,069	14,324	1,535	767	49·95	5·36
1883	10,447	14,831	1,639	797	48·62	5·68
1884	11,527	15,545	1,607	816	50·76	5·09
1885	12,208	16,122	1,799	886	49·27	5·64
1886	12,865	17,050	1,870	893	47·75	5·73
1887	14,068	18,288	1,847	910	49·31	5·12
1888	14,525	19,304	1,976	987	49·96	5·12
1889	15,900	20,505	2,049	1,038	50·64	4·93
1890	16,404	21,367	2,067	1,031	49·87	4·85
1891	17,283	22,106	2,404	1,130	47·02	5·76

APPENDIX I—(*contd.*)

STATISTICS OF WORKING—(*contd.*)

Year	Mileage open	Capital outlay in lakhs	Gross earnings in lakhs	Working expenses in lakhs	Per cent of working expenses to gross earnings	Per cent of net earnings on capital outlay on open lines
	Miles	RS	RS	RS		
1892	17,769	22,730	2,323	1,090	46·94	5·42
1893	18,459	23,318	2,408	1,135	47·12	5·46
1894	18,810	23,779	2,551	1,198	46·98	5·69
1895	19,467	24,438	2,624	1,212	46·19	5·78
1896	20,209	26,895	2,536	1,214	47·86	4·92
1897	21,115	28,212	2,560	1,248	48·74	4·65
1898	22,024	29,209	2,741	1,299	47·37	4·94
1899	23,507	30,850	2,937	1,393	47·45	5·00
1900	24,752	32,953	3,154	1,509	47·85	4·99
1901	25,363	33,917	3,360	1,572	46·79	5·27
1902	25,931	34,977	3,393	1,670	49·24	4·92
1903	26,956	34,111	3,601	1,711	47·52	5·54
1904	27,565	35,286	3,965	1,877	47·36	5·91
1905	28,287	35,852	4,170	1,995	47·85	6·07
1906	29,089	37,127	4,414	2,202	49·89	5·96
1907	29,957	39,187	4,731	2,432	51·42	5·86
1908	30,576	41,192	4,483	2,700	60·24	4.33
1909	31,490	42,983	4,706	2,638	56·06	4·81
1910	32,093	43,905	5,114	2,716	53·10	5·46
1911	32,839	45,007	5,528	2,884	52·17	5·87
1912	33,484	46,515	6,165	3,016	48·92	6·77
First quarter of 1913	33,599	47,091	1,624	849	52·28	1·67
1913-14	34,656	49,509	6,359	3,293	51·79	6·19
1914-15	35,285	51,922	6,042	3,274	54·19	5·33
1915-16	35,833	52,998	6,466	3,292	50·91	5·99
1916-17	36,286	53,528	7,068	3,340	47·26	6·96
1917-18	36,333	54,180	7,736	3,537	45·72	7·75
1918-19	36,616	54,974	8,629	4,180	48·45	8·09
1919-20	36,735	56,638	8,915	5,066	56·81	6·80
1920-21	37,029	62,681	9,199	6,029	65·54	5·06
1921-22	37,266	64,797	9,289	7,080	76·22	3·41

APPENDIX II

STATISTICS OF TRAFFIC (In Lakhs)

Passenger Traffic.

—	I Class*		II Class*		Inter Class*		III Class*	
	Passengers	Earnings	Passengers	Earnings	Passengers	Earnings	Passengers	Earnings
	NO.	RS	NO.	RS	NO.	RS	NO.	RS
1890 ...	4	22	26	23	44	40	1067	532
1900 ...	5	32	23	47	57	56	1540	752
1910 ...	8	59	30	77	110	95	3325	1,465
1919-20 ...	11·1	129	64·4	218	102	170	4603	2,769
1920-21 ...	11·5	130	71·3	226	117	191	4903	2,891
1921-22 ...	10·8	138	64·9	230	107	178	4907	2,842

N.B.—If a person or commodity has been carried over more than one railway, the same has been accounted for as often in these statistics of number of passengers and weight of goods. Thus a passenger who was carried over two railways has been reckoned as two.

* Excludes season tickets except in respect of figures for 1890.

APPENDIX II—(*contd.*)

STATISTICS OF TRAFFIC (In Lakhs)

Goods Traffic

—	Coal and Coke carried for Public and Foreign Railways		Grain and Pulse		Cotton		Fodder		Jute	
	Tons	Earnings	Tons	Earnings	Tons	Earnings	Tons	Earnings	Tons	Earnings
	RS	RS		RS		RS		RS		RS
1890 ...	25	85	42	272	10	185	...	...	5	47
1900 ...	73	211	103	633	9	136	8	32	13	68
1910 ...	139	385	98	635	20	295	5	22	15	94
1919-20 ...	214	791	136	945	22	416	15	101	20	163
1920-21 ...	219	821	128	958	20	405	12	86	17	157
1921-22 ...	188	730	123	942	22	481	12	80	13	129

N.B.—If a person or commodity has been carried over more than one railway, the same has been accounted for as often in these statistics of number of passengers and weight of goods. Thus a passenger who was carried over two railways has been reckoned as two.

APPENDIX II—(*contd.*)

STATISTICS OF TRAFFIC (In Lakhs)

Goods Traffic—(contd.)

—	Metals		Oils		Oilseeds		Salt		Sugar	
	Tons	Earnings	Tons	Earnings	Tons	Earnings	Tons	Earnings	Tons	Earnings
		RS		RS		RS		RS		RS
1890 ...	4	49	2	22	12	88	12	77	9	69
1900 ...	6	46	5	35	15	95	16	96	11	84
1910 ...	22	145	9	70	35	251	21	123	19	151
1919-20 ...	25	155	14	141	27	221	25	160	20	173
1920-21 ...	33	227	11	117	18	136	22	147	18	153
1921-22 ...	28	210	11	138	20	172	23	161	22	252

N.B.—If a person or commodity has been carried over more than one railway, the same has been accounted for as often in these statistics of number of passengers and weight of goods. Thus a passenger who was carried over two railways has been reckoned as two.

APPEN

IN LAKHS OF

VALUE OF STORES PURCHASED BY THE

A.—Value of stores imported direct.

C.—Value of stores of Indian

Classes	1915-16		
1	2		
	A	B	C
Bridge-work	3	1	2
Engineer's plant excluding petty tools	4	2	.
Workshop machinery and heavy tools	9	2	..
PERMANENT-WAY—			
1. Rails	18	1	14
2. Steel and cast iron sleepers and chairs and fastenings ...	31	2	14
3. Wooden sleepers	...	...	...
ROLLING STOCK—			
1. Locomotives and spare parts ...	135	1	5
2. Coaching and goods stock including spare parts	143	5	21
Building and station materials and fencing	5	5	8
TOOLS AND STORES—			
1. Tools and cutlery	3	3	1
2. Iron, steel and other metals (excluding permanent-way materials)	30	16	15
3. Portland Cement	5	1	...
4. All other stores	33	60	337
Electrical plant and materials ...	12	7	...
Total ...	431	106	417
Grand total for the year ...	954		

N.B.—Materials invariably purchased in India such as bricks,

DIX III

RUPEES

PRINCIPAL RAILWAYS (WHICH REPORTED).

B.—Value of imported stores purchased in India.

manufacture or of indigenous origin.

1916-17			1917-18			1918-19		
3			4			5		
A	B	C	A	B	C	A	B	C
3	...	1	1	...	...	...	...	...
1	2	...	...	1	...	1	2	1
8	3	...	3	4	..	3	5	...
27	9	27	...	2	4	...	...	50
18	...	38	2	...	13	2	...	14
...	...	...	...	...	...	...	...	128
31	3	3	56	5	4	91	4	5
70	11	11	37	14	32	89	32	62
3	12	10	1	11	9	1	11	6
3	7	1	3	11	1	5	13	1
15	45	21	11	79	33	36	55	57
...	3	3	...	2	3	...	...	4
23	118	480	14	138	506	13	179	376
8	11	1	7	11	1	7	17	2
210	224	596	135	278	606	248	318	706
1,030			1,019			1,272		

lime and mortar, timber, ballast, etc., are not included.

APPEN

IN LAKHS OF

VALUE OF STORES PURCHASED BY THE

A.—Value of stores imported direct.

C.—Value of stores of Indian

Classes	1919–20		
		6	
	A	B	C
Bridge-work	6	...	...
Engineer's plant excluding petty tools	1	4	1
Workshop machinery and heavy tools	15	8	..
PERMANENT-WAY—			
1. Rails	113	...	82
2. Steel and cast iron sleepers and chairs and fastenings ...	57	2	34
3. Wooden sleepers	...	...	130
ROLLING-STOCK—			
1. Locomotives and spare parts ...	144	4	6
2. Coaching and goods stock including spare parts	644	44	69
Building and station materials and fencing	7	15	9
TOOLS AND STORES—			
1. Tools and cutlery	12	11	2
2. Iron, steel and other metals (excluding permanent-way materials)	68	60	78
3. Portland Cement	...	1	3
4. All other stores	60	215	415
Electrical plant and materials ...	21	28	1
Total ...	1,148	392	830
Grand total for the year ...		2,370	

N.B.—Materials invariably purchased in India such as bricks,

DIX III—(*contd.*)

RUPEES—(*contd.*)

PRINCIPAL RAILWAYS (WHICH REPORTED).

B.—Value of imported stores purchased in India.

manufacture or of indigenous origin.

1920-21			1921-22		
7			8		
A	B	C	A	B	C
33	1	2	92	3	1
4	8	1	13	10	1
30	24	...	54	12	1
51	...	62	88	20	100
104	4	38	123	9	60
16	15	156	2	29	235
654	24	6	598	10	6
548	35	105	705	50	147
12	26	13	27	23	12
13	13	2	14	14	2
61	88	68	63	73	59
3	5	5	5	3	4
63	222	441	130	525	443
31	36	2	58	35	2
1,623	501	901	1,972	816	1,073
3,025			3,861		

lime and mortar, timber, ballast, etc., are not included.

APPEN

BRANCH LINE

Paid up Capital Ordinary	Mortgage or Debentures	Block Account	Paid up per share	Market Quotation*
RS	RS (In thousands)	RS (In thousands)	RS	RS
17,24,000	...	1,982	100	60
25,00,000	1,100	3,726	500	775
32,00,000	300	3,448	100	120
22,00,000	...	3,086	100	70
21,69,300	...	2,319	100	60
34,00,000	...	3,634	100	60
19,00,000	300	2,436	100	65
8,48,680	150	1,148	10	...
12,00,000	...	1,420	100	72
17,80,000	...	1,827	100	60
84,00,000	...	8,500	100	98
23,00,000	...	3,010	100	72
17,50,000	1,725	4,710	100	165
43,75,000	1,200	5,521	100	...
4,36,000	100	881	100	120
12,05,000	...	1,179	100	81
11,50,000	...	1,613	100	60
34,50,000	900	5,054	100	80
31,50,000	...	3,136	100	100

G—Guaranteed share.
R—Rebate share.
P—Companies marked thus have preference shares.
* The market quotations are based on some recent issues of the
roughly the present-day trend of prices.
† In some cases the dividends are for the 12 months commenc-

DIX IV

COMPANIES

Names of Railways	Dividends per cent for year †		
	1920	1921	1922
Ahmadpur-Katwa	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$
Ahmedabad-Prantej	$9\frac{1}{2}$	$11\frac{1}{2}$	13
Amritsar-Patti	$7\frac{3}{4}$	$8\frac{1}{4}$	$8\frac{3}{4}$
Arakan Light	$5\frac{1}{2}$	$5\frac{1}{2}$	$5\frac{1}{2}$
Arrah-Sasaram	4	4	$4\frac{1}{2}$
Bankura-Damoodar River	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$
Baraset-Basirhat	$4\frac{1}{2}$	5	$4\frac{1}{2}$
Bengal Provincial	...	...	...
Bukhtiarpore-Bihar	4	6	6
Burdwan-Katwa	$3\frac{1}{2}$	$3\frac{1}{2}$	$3\frac{1}{2}$
Central Provinces	$6\frac{3}{16}$	6	6
Chaparmukh-Silghat	$4\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$
Darjeeling Himalayan... ... P	12	13	12
Darjeeling Himalayan Extensions ...	5	5	5
Dehri-Rohtas	$12\frac{1}{2}$	$12\frac{1}{2}$	$12\frac{1}{2}$
Dhond Baramati	5	5	$5\frac{1}{2}$
Futwah-Islampur	4	4	$3\frac{1}{2}$
Guzerat	5	5	5
Hardwar-Dehra	$6\frac{1}{2}$	$6\frac{1}{2}$	$6\frac{3}{4}$

weekly journal *Capital* and have been given merely to indicate

ing from April.

APPEN

BRANCH LINE

Paid up Capital Ordinary			Mortgage or Debentures	Block Account	Paid up per share	Market Quotation*
RS			RS (In thousands)	RS (In thousands)	RS	RS
57,00,000	...	...	...	5,815	100	75
16,00,000	...	...	950	2,869	100	101
6,00,000	...	...	...	817	100	95
16,50,000	...	...	...	1,858	100	72
8,91,800	...	...	...	1,266	100	68
8,13,346	...	...	...	822	100	100
26,97,600	...	...	...	2,199	100	82
24,82,110	...	...	..	2,393	90	65
22,25,000	...	...	...	2,380	100	52
G 63,00,000	...	...	...	11,296	100	74
R 23,00,000	...	...	...	...	...	73
16,50,000	...	...	...	1,666	100	73
80,00,000	...	...	...	8,751	100	72
15,00,000	...	...	3,000	4,715	100	110
30,00,000	...	...	...	2,754	100	78
16,00,000	...	...	...	1,564	100	140
1,31,73,000	...	...	...	13,331	500	600
1,75,000	...	...	50	487	100	61
22,00,000	...	...	...	2,257	100	70

G—Guaranteed share.
R—Rebate share.
P—Companies marked thus have preference shares.
* The market quotations are based on some recent issues of the roughly the present-day trend of prices.
† In some cases the dividends are for the 12 months commenc-

DIX IV—(*contd.*)

COMPANIES—(*contd.*)

Names of Railways		Dividends per cent for year †	
	1920	1921	1922
Hoshiarpur-Doab	5	5	4¾
Howrah-Amta	7	7	7
Howrah-Sheakhala	6	6	6
Kalighat-Falta	4	4	4
Katakhal-Lala Bazaar	4	4	4
Khulna Bagirhat	4¾	4¾	4¾
Larkana-Jacobabad (Sind)	4	4	4
Mandra-Bhon	4⅞	4⅞	5
Mayurbhanj	4	3	3
Mymensingh-Bhairab Bazaar ...	4½	4¾	3½
......	5	4¾	4½
Pachora-Jamner	5	4 11/16	5
Sara-Serajganj	5	4½	5
Shahdara (Delhi)—Saharanpur ...	7	7	7
Sialkot-Narowal	5	5	5
Sind Light	11	11	10
Tapti Valley	8½	8½	8
Tezpore-Balipara Tramway ... P	3	...	2
Upper Sind Light	5	4½	4½

weekly journal *Capital* and have been given merely to **indicate**

ing from April.